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1985 POWER PROGRAM SUMMARY

VOLUME I

TENNESSEE VALLEY AUTHORITY

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1985
Power Program Summary
Volume I

Tennessee Valley Authority
A corporation wholly owned
by the
United States of America
For the fiscal year ended
September 30, 1985

TVA is a corporate agency of the United States Government. It was established by an Act of Congress in 1933 to develop the Tennessee River system and to assist in the development of other resources of the Tennessee Valley and adjoining areas.

The production and sale of electric power are part of TVA's resource development program. TVA supplies power at wholesale to 160 municipal and cooperative distributors which in turn distribute power to 3 million customers in parts of seven States. TVA also supplies power directly to 49 industrial customers with large or unusual power requirements and several Federal, nuclear, aerospace, and military installations.

Financially, the Power program is separate from other TVA programs. It is required to be self-supporting and self-liquidating. Power accounts are kept in accordance with the uniform system prescribed for electric utilities by the Federal Energy Regulatory Commission.

This report deals with TVA's electric power activities. Additional information about power or other activities may be obtained from the Director of Information, Tennessee Valley Authority, Knoxville, Tennessee 37902.

This report, published in two volumes, provides a summary of TVA power and distributor operations in fiscal year 1985. Volume I data is based on the TVA fiscal year ending September 30, 1985, unless otherwise noted. Volume II data is based on the distributors' fiscal year ending June 30, 1985.

Board of Directors
Charles H. Dean, Jr., Chairman
Richard M. Freeman, Director
John B. Waters, Director

General Manager
William F. Willis
Manager of Power and Engineering (Supply and Use)
R. C. Steffy, Jr.
Manager of Power and Engineering (Nuclear)
Hugh G. Parris
General Counsel
Herbert S. Sanger, Jr.
Comptroller
Robert L. Yates

Cover: Abstraction of "Sunshine On A Cloudy Day", one of the sculptures decorating the Chattanooga Office Complex.

Summary

	Fiscal Year	
	1984	1985
Sales (billion kWh)*	109	104
Revenues (millions)	$ 4,453	$ 4,547
Payments in Lieu of Taxes to States and Counties (millions)	$ 170	$ 188
Total Operating Expense (millions)	$ 2,775	$ 2,802
Net Interest Charges (millions)	$ 1,026	$ 1,033
Net Income or (Loss) (millions)	$ (134)	$ 426
Increase or (Decrease) in Retained Earnings (millions)	$ (228)	$ 330
Total Payments to U. S. Treasury (millions)	$ 114	$ 117
Total Assets (millions)	$20,645	$21,533
Average Annual Residential Use (kWh)	13,990	13,730
Average Cost per Residential kWh (cents)	4.78	4.80

*Represents total TVA sales at the delivery point to distributors, industries, and Federal agencies. The 1985 total sales to ultimate customers is 98.6 billion kWh. For 1984 total sales to ultimate customers was 104 billion kWh. The difference between TVA sales and sales to ultimate customers is the power lost in distribution facilities.

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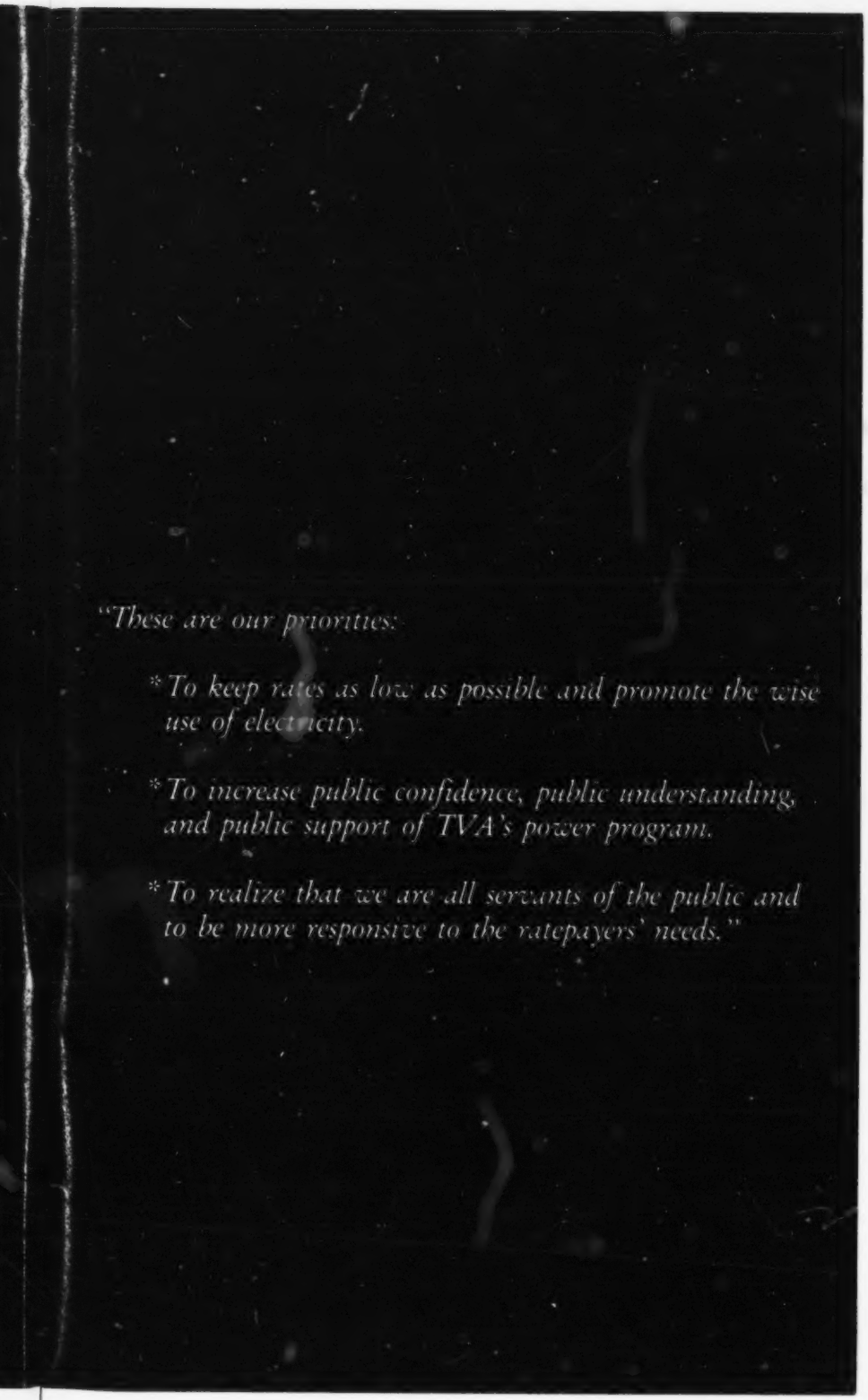
TVA/P&E/P&E INFO-86/18


"These are our priorities:
* To keep rates as low as possible and promote the wise use of electricity.
* To increase public confidence, public understanding, and public support of TVA's power program.
* To realize that we are all servants of the public and to be more responsive to the ratepayers' needs."

Robert C. Steffy, Jr.
Manager of Power & Engineering
(Supply & Use)

PERSPECTIVE ON 1985

TVA long since opted to serve as the Nation's energy laboratory. And we have done so as a practical operating laboratory for applied technology, not in a vacuum, not undercover, not where projects or ideas might be nursed along in secret and brought forth with a flourish when and if they were well proven.

We began with a mission and sufficient faith and confidence in that mission to fulfill it under national and international scrutiny.

In 1985 such prominence cut both ways for TVA.

We and the public watched near-record drought conditions bring hydro generation, our least-expensive source of power, well under the typical and expected amounts.

We saw nuclear generation, historically the next-lowest-cost source of generation, drop by over 7 billion kilowatthours under 1984's nuclear generation levels as we voluntarily shut down our nuclear plants to resolve regulatory concerns.

The lack of hydro and nuclear generation pushed up fuel and power costs by $89 million when we turned to coal and purchased power to make up the difference.

In spite of problems in our nuclear area, in spite of record drought, because people worked hard and worked well, 1985 was a good year overall for TVA.

Major accomplishments in the year were:

- Rates for 1985 remained at the level approved for 1984. A $150 million revenue credit from 1984 was applied to 1985 bills, replacing a revenue credit which had just expired and holding the increase in actual rate effects to 0.4 percent. Through prudent operations, we ended 1985 with a recommendation for a rate increase in 1986 that enabled us to add a fifth year of holding power costs below the level of general inflation.
- We continued to be highly competitive with neighboring utilities and with utilities across the Nation in both residential and commercial rate levels. It is worth special note that General Motors Corporation chose the Tennessee Valley as the site of its new manufacturing and assembly plant. GM cited stable electric rates as a major factor in that decision. The project is the largest private industrial development ever in the United States.
- Bull Run Fossil Plant ranked as the most efficient coal-fired plant in the Nation—for the second year in a row. And units at Gallatin and John Sevier Fossil Plants were among the top 25 in the Nation.
- By 1985, the conservation and energy management programs TVA had pioneered in the 1970s had resulted in the deferral of over 1,000 megawatts of capacity and an energy saving of 2.6 billion kilowatthours.
- A new type of interruptible power service, Limited Interruptible Power (LIP), was offered to TVA's large industrial customers. Developed to preserve employment by helping the industrial sector recover from recession, LIP yielded energy sales of 1.96 million kilowatthours for fiscal year 1985 and $54.7 million in revenue.

1985

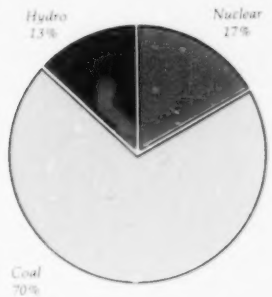
- Diverse, major accomplishments highlighted the TVA commitment to environmental control in 1985:
  - Ground was broken for an atmospheric fluidized bed combustion demonstration plant that will help test what may be a cleaner and more economical way of generating power from coal.
  - A technical task force was established to fine-tune the operation of a limestone scrubber situated on four large plants.
  - Dry flue gas desulfurization research was successfully conducted at the Shawnee Test Site Facility.
  - A wetland was constructed at the Fabius Coal Washing Plant in Alabama to assess a potentially cost-effective method of treating acid seepage and drainage.

Robert C. Jeffrey, Jr.

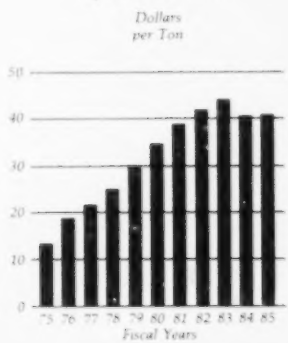
Widows Creek Fossil Plant near Stevenson, Alabama.

FINANCIAL ANALYSIS

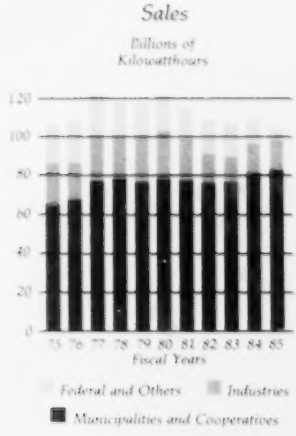
TVA Power Supply



Average Cost of Coal Burned



Sales



Sales

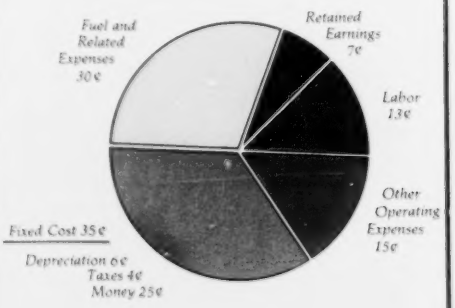
Power sales declined in 1985 to 103.5 billion kilowatthours, the lowest level since 1972, when sales were 91 billion kilowatthours. Power sales in 1984 were 109 billion.

Sales to distributors were up slightly to 82.2 billion kilowatthours from 80.7 billion in 1984. Distributors' sales to their residential customers and to their commercial and industrial customers were up, reflecting an upswing in the economy in the Tennessee Valley area.

TVA sales to directly served customers decreased to 15.4 billion kilowatthours in 1985 from 16.5 billion in 1984. This drop was due in part to the depressed metals industries, but sales to directly served customers exceeded the historic low of 13.1 billion kilowatthours in 1983.

Sales to Federal agencies dropped to 5.2 billion kilowatthours, one-half of last year's sales of 11.2 billion and a third of the 1983 sales of 16.4 billion kilowatthours. Sales to Federal agencies have declined almost continuously since 1977 as the market for enriched uranium has dropped off and the Department of Energy's need for TVA power at its uranium enrichment plants has dropped correspondingly.

Distribution of TVA Revenue Dollar



Near-record drought conditions caused low lake levels like these across the Valley.

Revenues and

Revenues were up slightly to $4.55 billion in 1985 from $4.45 billion in 1984. Revenues from distributors of TVA power rose slightly from $3.19 billion in 1984 to $3.27 billion in 1985. Revenues from directly served industries were down by 8 percent, dropping from $685 million in 1984 to $629 million in 1985. Revenues from Federal agencies dropped 13 percent from $649 million in 1984 to $566 million in 1985.

Total operating expenses rose slightly in 1985 to $2.80 billion over the $2.77 billion for 1984. Total production costs rose from $1.86 billion to $1.98 billion. Because of reduced nuclear power generation and the lack of hydro power, TVA was a net

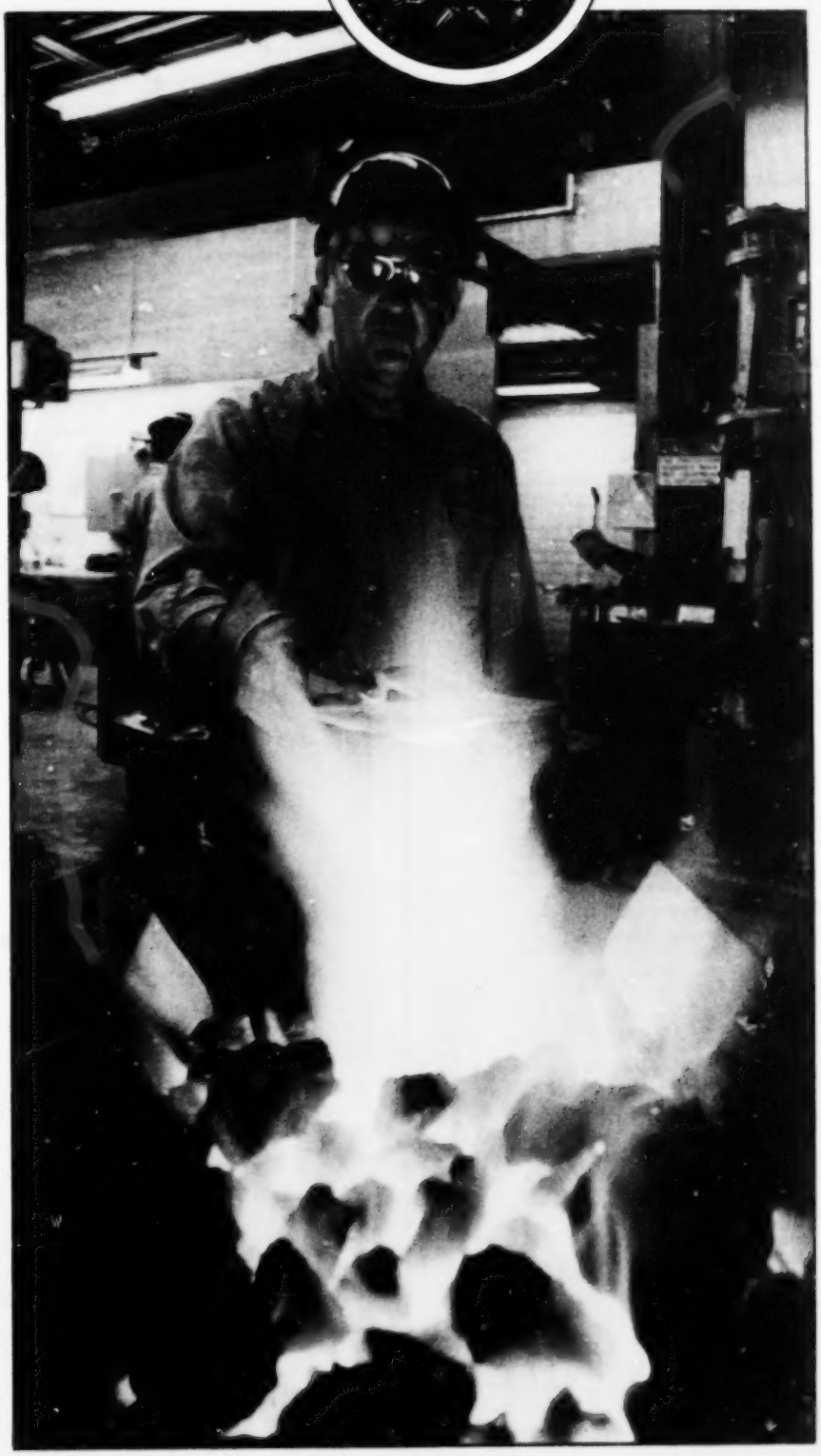
at Chickamauga Dam and limited hydro generation

Expenses

importer of power in 1985 by a margin of 3.3 billion kilowatthours. The agency had been a net exporter of power over the previous two years.

TVA burned 31.1 million tons of coal in 1985 compared with 29.3 million in 1984 as the coal-fired plants were called upon to supply 73.8 billion kilowatthours of power during the year. The coal-fired plants delivered 69.1 billion kilowatthours in 1984. The average cost of coal burned continued to drop from the record high of $43.77 per ton in 1983 to $40.49 per ton in 1985.

Due to near-record drought conditions, total hydro generation for 1985 was 13.6 billion kilowatthours, well under the 17.6 billion kilowatthours

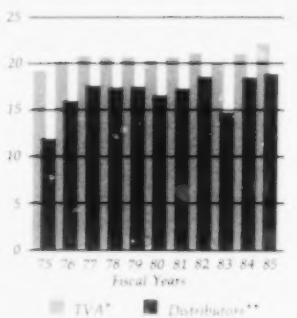


Joe Voiles, boilermaker at Bull Run Fossil Plant near Clinton, Tennessee.

*Construction Expenditures**

* Includes allowance for borrowed funds used during construction

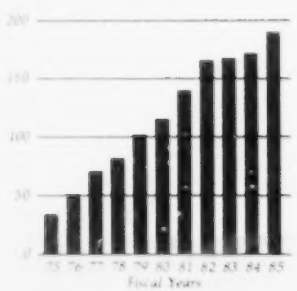
Peak Load



* TVA figures ending June 30 for 1975, 1976 and September 30 for 1977–1985.

** Distributors figures ending June 30.

TVA Payment in Lieu of Taxes



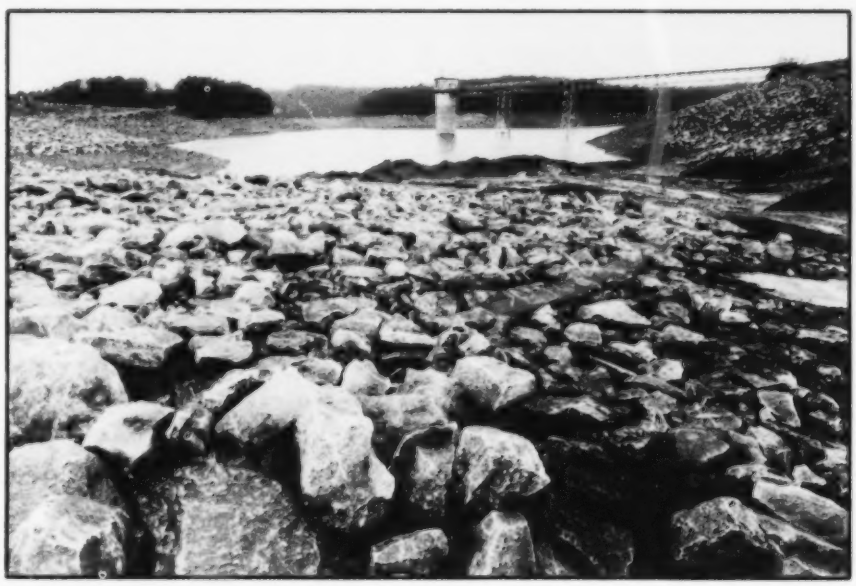
expected in a normal hydro year.

During 1985, rainfall across the Valley was about 13.2 inches below normal, the fourth-driest 12-month period on record. Rainfall in the eastern half of the region, where most of TVA's storage reservoirs are located, was 17 inches below normal and the driest for this period in 60 years.

Nuclear generation was down by 7.1 billion kilowatthours to 17.7 billion in 1985 as Browns Ferry and Sequoyah Nuclear Plants were voluntarily closed to resolve regulatory concerns.

TVA in-lieu-of-tax payments to States and counties were $188 million in 1985, calculated at 5 percent of revenues from sales of electric energy from the previous year, excluding sales to Federal agencies. In addition, municipal and cooperative distributors of TVA power paid $64 million in tax equivalents and taxes during their fiscal year, which ended June 30, 1985, for a total of $252 million paid to State and local governments from TVA and the local power distributors.

Operating income in 1985 was $1.75 billion, or 108 percent of interest charges, which were $1.61 billion. TVA's objective is to have operating income (operating revenues less operating expenses) at about 110 percent of interest charges.



At Blue Ridge Dam near Blue Ridge, Georgia rainfall 17 inches below normal combined with drawdown for construction work produced this dry and rocky lake bed.

Financing

Fiscal year 1985 net borrowings were $896 million, significantly more than the $370 million for 1984 but less than the average borrowings of $1.5 billion for the seven years prior to 1984.

TVA paid a return to the U.S. Treasury of $97 million on outstanding Federal appropriation investment in the power system and an annual repayment of $20 million on the investment. The remaining appropriation investment at year end was $828 million. Congressional appropriations had provided about two-thirds of the capital funds for the power system before the 1959 legislation authorizing TVA to issue revenue bonds for this purpose.

To keep Rates as low as possible . . .

Rates

Fiscal year 1985 was the fifth year of relatively flat power bills for TVA consumers, with the wholesale cost of power remaining fairly stable since October 1981.

No rate increase was requested for 1985 over 1984, and rates throughout 1985 remained at the 1984 approved level. A $150 million revenue credit from 1984 was applied against 1985 bills. A $158 million revenue credit had been in place during 1984 which had held actual bills in that year about 3.6 percent below the approved rate level. Because of the expiration of the 1984 revenue credit and the application of a slightly lower revenue credit for 1985, actual bills in 1985 increased by about 0.4 percent.

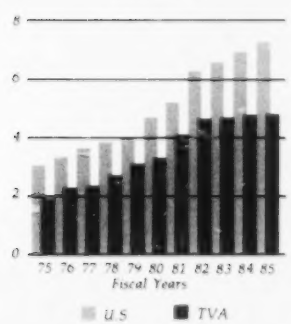
A survey of electric rates in selected cities around the country and another of the major cities in the Southeast confirmed that TVA rates are competitive. For monthly residential electric bills at the 1,000 kilowatthour use level—the standard industry comparison and about the average use for residential consumers in the TVA region—only the Northwest, with large amounts of hydro power, has lower residential rates.

In the Southeast U.S., residential consumers in the TVA region were paying significantly less than the consumers in the other cities surveyed.

In a comparison of a typical medium-sized industry with 1,000-kilowatt monthly demand and 400,000 kilowatthours in energy use, the result was similar. Looking at these industries, such as supermarkets, medium-sized shopping centers, or metal fabricating plants, among the major U.S. cities surveyed, once again, only the Pacific Northwest utilities were able to offer lower rates. In the Southeast U.S., TVA rates were in the lower one-third of those surveyed.

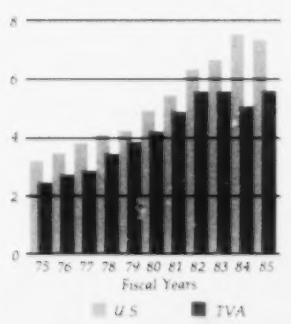
Average Residential Rate

Cents per Kilowatthour



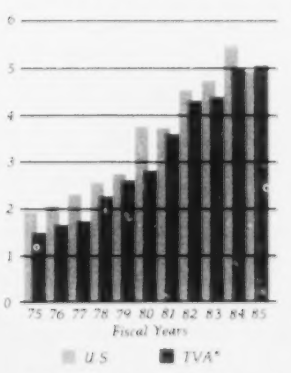
Average Industrial Rate

(Small Light and Power)
Cents per Kilowatthour



Average Industrial Rate

(Large Light and Power)
Cents per Kilowatthour



*Includes TVA sales to DOE (Oak Ridge and Paducah)

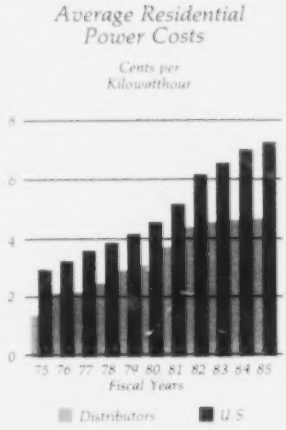
A new type of interruptible power service, Limited Interruptible Power, (LIP), has been offered to TVA's large industrial customers. The power is offered at rates as much as 30-percent cheaper than regular firm power. In return for the lower price, TVA reserves the right to curtail the power, within prescribed limits, if necessary.

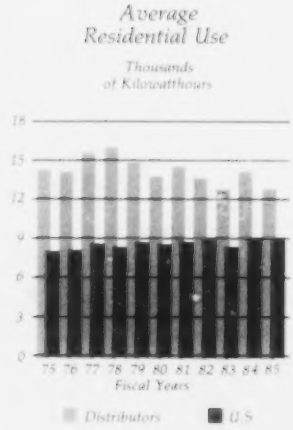
The program was developed to preserve employment by helping the industrial sector recover from the recession in 1982 and 1983. It yielded energy sales of 1.96 million kilowatt-hours for fiscal year 1985 and $54.7 million in revenue. The program has allowed TVA to improve power system flexibility and at the same time to help keep industrial production and jobs in the region.

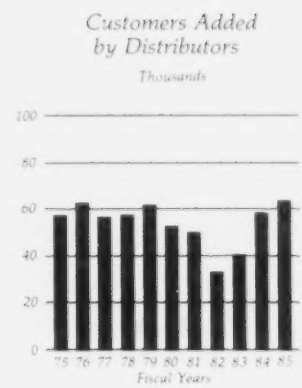
On March 1, 1985, Knoxville Iron Company became the first distributor-served customer to utilize LIP.

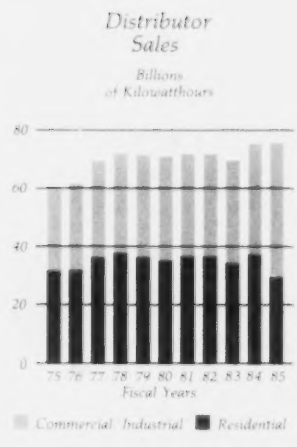
On March 1, 1985, Knoxville Iron Company became the first distributor-served customer to utilize Limited Interruptible Power.

Distributor Statistic





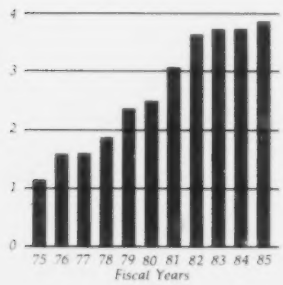




Figures based on distributors fiscal year ending June 30.

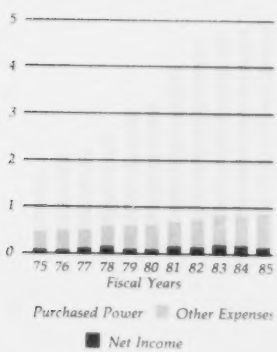
Wholesale Power Costs

Cents per Kilowatthour



Distribution of Distributor Revenue

Cents per Kilowatthour Sold



Boiler rehabilitation at Paradise Fossil Plant near Drakesboro, Kentucky.

. . . More responsive to the Ratepayers needs.

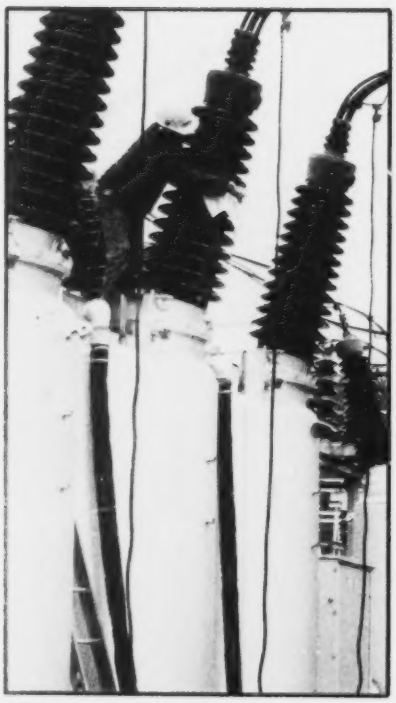
TVA coal-fired plants provided about 74 billion kilowatthours in 1985, or 70 percent of the total generation. The coal-fired generation, some 8 billion more than originally planned for the year, was needed to replace lost hydro and nuclear generation.

A near-record drought brought hydro generation down to 13.6 billion kilowatthours, well under the hoped-for "normal" generation of about 18 billion kilowatthours.

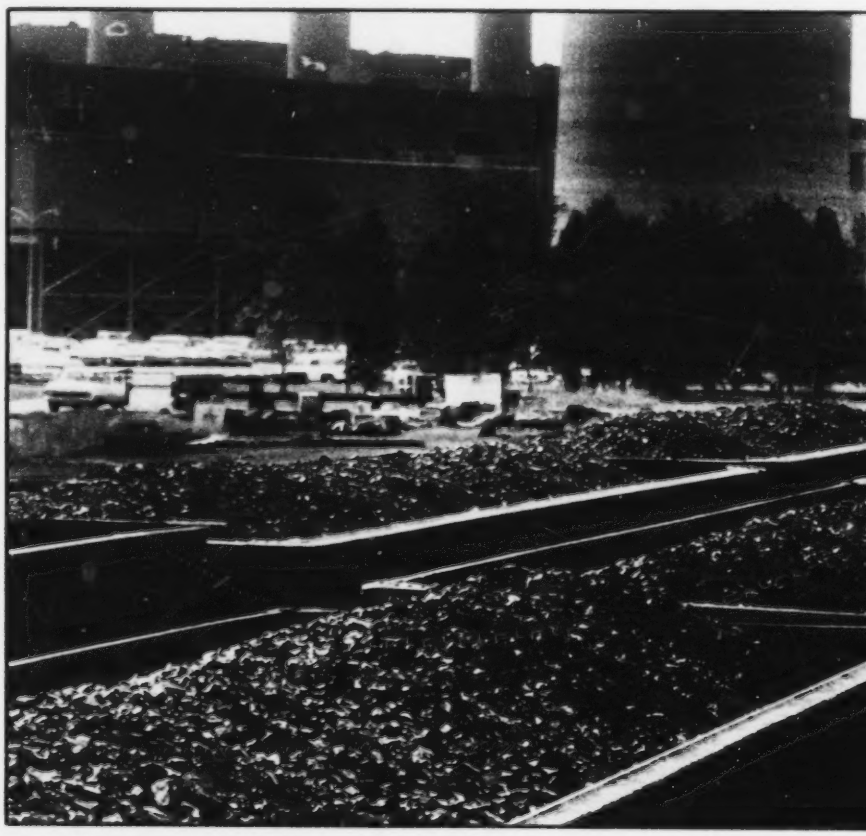
Nuclear generation totaled only 17.7 billion kilowatthours compared with 24.8 billion kilowatthours in 1984 and a record 28.1 billion in 1983. The reduced nuclear generation was a result of TVA's two operating nuclear plants being offline for maintenance, refueling, and review of various safety and environmental considerations. Browns Ferry Nuclear Plant near Decatur, Alabama, was offline from late March through the end of the fiscal year. Sequoyah Nuclear Plant near Chattanooga, Tennessee, was offline from late August.

Bull Run Fossil Plant near Clinton, Tennessee, was named the most efficient fossil fuel unit in the Nation for the second year in a row in calendar year 1984. The heat rate for the year was 8,920 Btu/kilowatthour. In calendar 1985 the heat rate was further improved to 8,860 Btu/kilowatthour. Gallatin Fossil Plant near Gallatin, Tennessee, and John Sevier Fossil Plant near Rogersville, Tennessee, both had units among the top 25 in the Nation in efficiency.

During 1985, Paradise Fossil Plant unit 3, near Drakesboro, Kentucky,



Insulators are carefully cleaned during a maintenance outage at Bull Run Fossil Plant near Clinton, Tennessee.



Coal is delivered at Kingston Fossil Plant near Kingston, Tennessee. TVA burned 31.1 million tons of coal in 1 as coal-fired plants were called upon to supply 73.8 billion kilowatthours of power during the year.

set a unit record for continuous operation, 61 days, besting its old record set 14 years ago in 1971, which was the unit's first year of commercial operation. The unit also set a new record for gross generation during a period of continuous operation by generating 1.4 million megawatthours.

A reorganization at Widows Creek Fossil Plant near Stevenson, Alabama, was implemented to improve the reliability and performance of sulfur dioxide scrubbers on units 7 and 8 and to reduce operating and maintenance costs. As a result, the two units were brought to 100 percent compliance with the Clean Air Act and the project remained under its operating and maintenance budget for the year.

Coal barge unloading facilities at Paradise Fossil Plant near Drakesboro, Kentucky.

. . . Promote the wise use of electricity

Through 1985 more than 514,000 homes have been weatherized through TVA and distributor residential conservation programs.

In the area of energy management, TVA has moved from national pioneer in the '60s and '70s to advanced practical laboratory in the '80s. To date, the agency's conservation and energy management programs have resulted in the deferral of over 1,000 megawatts of capacity and an energy saving of 2.6 billion kilowatthours.

The programs are wide-ranging, covering residential and commercial and industrial areas and energy demonstrations. They have become increasingly important as costs have soared for building new power plants. Installations made under TVA's conservation and load management programs through 1990 could save approximately $3.5 billion in operating and construction costs. This saving would represent a reduction in consumption of approximately 5 billion kilowatthours and a demand reduction of approximately 2,000 megawatts on the winter peak and 800 megawatts on the summer peak.

The flagship of the residential programs is The Energy Package® which, in 1985, included the major conservation programs—home insulation, heat pumps, solar water heaters, wood heaters, and heat pump water heaters. The package includes a combination of free inspections and recommendations and low-interest and no-interest loans. Through 1985, more than 514,000 homes had been weatherized, and 35,485 heat pumps, 6,588 solar water heaters, 6,337 wood heaters, and 682 heat pump water heaters were installed.

During 1985, the Wood Heater Safety Insurance Program was developed. Through the insurance program, TVA provided a 4-hour wood heater inspection course for personnel from insurance companies located within the TVA power service area. In return, the insurance companies provided TVA with data regarding the installation of each wood heater inspected. Over 3,600 wood heaters have been inspected under the program.

More than 40 percent of all consumers receiving weatherization

Builders construct a model house at the Energy Conservation and Solar Institute in Chattanooga, Tennessee.

assistance during 1985 were low-income families, compared with 10 percent in 1981.

Working with the Department of Housing and Urban Development (HUD), TVA weatherized 648 homes just above the poverty level. In other efforts, TVA provided funds for the Human Services Department in Chattanooga to train 25 volunteers to reach approximately 2,000 participants with weatherization self-help information.

In Tennessee, TVA supported the Green Thumb Program which trains senior citizens to assist in conservation. Under the program, the homes of more than 10,350 elderly and low-income people were insulated. The agency also helped the State of Georgia obtain $355,000 in HUD weatherization funds for 11 north Georgia counties.

To help level peak demand on the TVA system while saving consumers money on their electric bills, TVA has in place a Cycle and Save load management program. The program cycles or interrupts the flow of

. . . Public support of TVA's Power Program . . .

Over 49,000 TVA consumers are cycling the operation of their air conditioners in TVA's Cycle & Save program.

electricity to central air-conditioners and/or water heaters for specified intervals at times of peak demand. Participating consumers get a discount on their electric bills. Through 1985, over 49,000 consumers were participating in air-conditioning cycling and more than 48,000 were participating in water heater cycling.

Through the Energy Saver Home Program, TVA works with local power distributors and home builders to promote the design and construction of energy-efficient new housing. Building standards developed by TVA are designed to strike a balance between increased building costs and reduced energy usage. A home built to the Energy Saver Home standards can reduce space heating costs up to 70 percent and cooling costs up to 33 percent.

The program offers cash incentive payments for the builder or buyer, technical advice and assistance, and a free portfolio of 27 passive solar home designs for builders and buyers. As of September 1985, over 13,400 Energy Saver homes had been certified and an additional 1,300 were under construction.

Commercial and Industrial

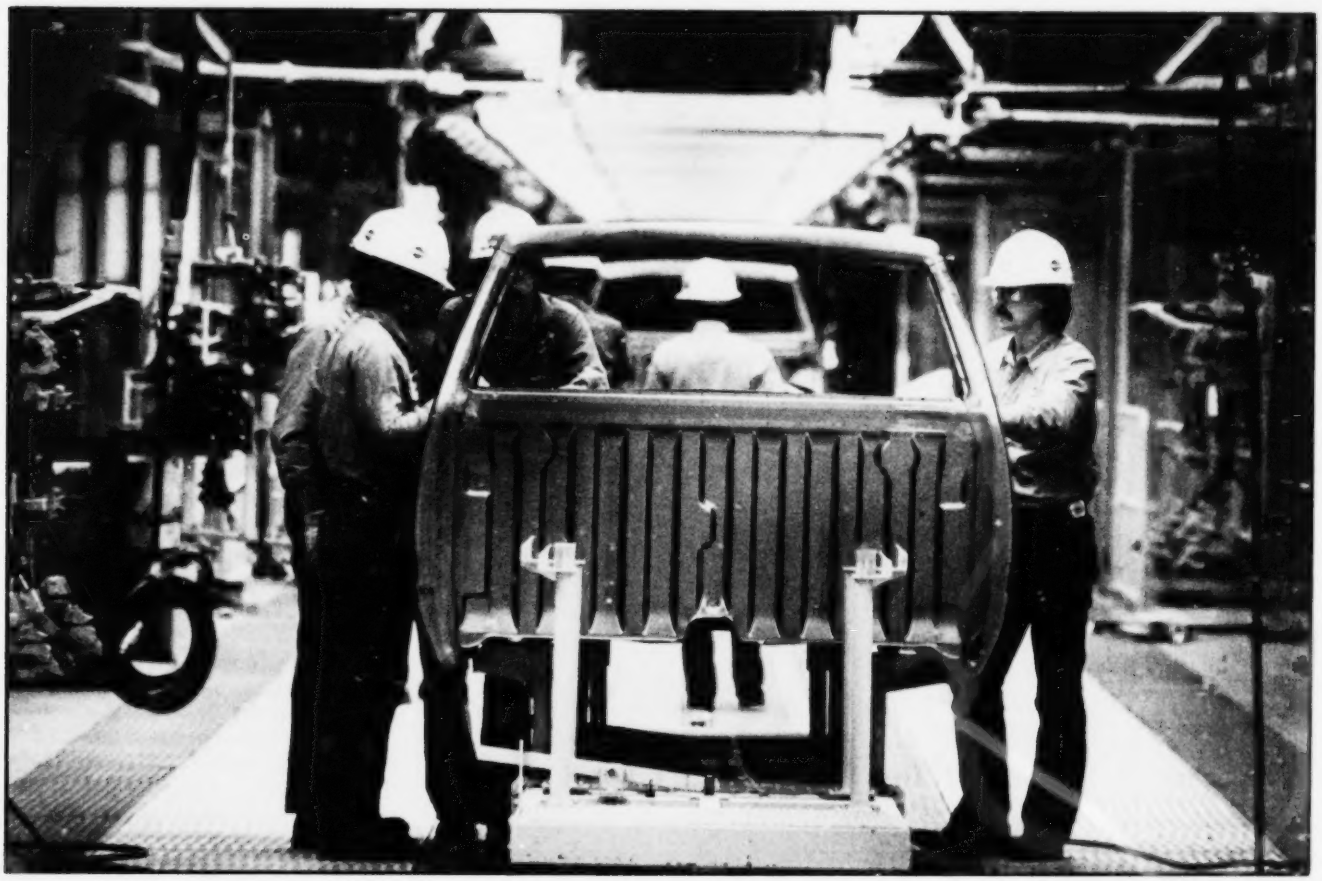
More than half of all TVA power is used by the commercial and industrial sector. In fiscal year 1985, approximately 61 billion kilowatthours were consumed by an estimated 336,000 distributor-served C&I consumers and 49 directly served C&I consumers, including 11 Federal agencies.

Since energy is a vital element in the overall productivity mix of commerce and industry, TVA and distributors of TVA power have traditionally provided technical expertise to help this sector achieve maximum efficiency for the energy dollar.

Services available include onsite energy evaluation of commercial and industrial facilities; review of construction design for firms planning expansion and for new firms locating in the Valley; and technical assistance for implementing new technologies, such as passive solar design, load management systems, and commercial solar water heating, as well as assistance to firms considering the use of biomass fuels.

To enable qualified commercial and industrial consumers to implement recommended energy conservation measures, the program includes providing the consumers with a source of funds at TVA's estimated cost of borrowing. Through September 1985, 21,781 buildings had been surveyed and 291 loans had been made. As a result, consumers have implemented energy conservation opportunities that are saving 696 million kilowatthours annually.

To promote the use of wood fuel in commerce and industry, TVA has initiated a program of information and education for industry officials and engineers who design the heating systems and industrial boilers used in the region. As part of the program, technical assistance is provided to selected firms considering conversion to biomass fuels. The program has assisted with the completion of 19 wood energy systems for space and/or process heating and technical assistance has been provided to 131 firms.



More than half of all TVA power is used by commmercial and industrial customers like the Nissan truck assembly line in Smyrna, Tennessee.

RESEARCH, DEVELOPMENT, AND DEMONSTRATION

A major purpose of the power research and development programs is to develop technologies to assist TVA in stabilizing electric rates. This can be accomplished through the development of advanced generating and other technologies that will allow TVA to provide an adequate, reliable supply of electricity to meet future demands in the most economical way and through the development of equipment and methods to reduce the cost of electricity.

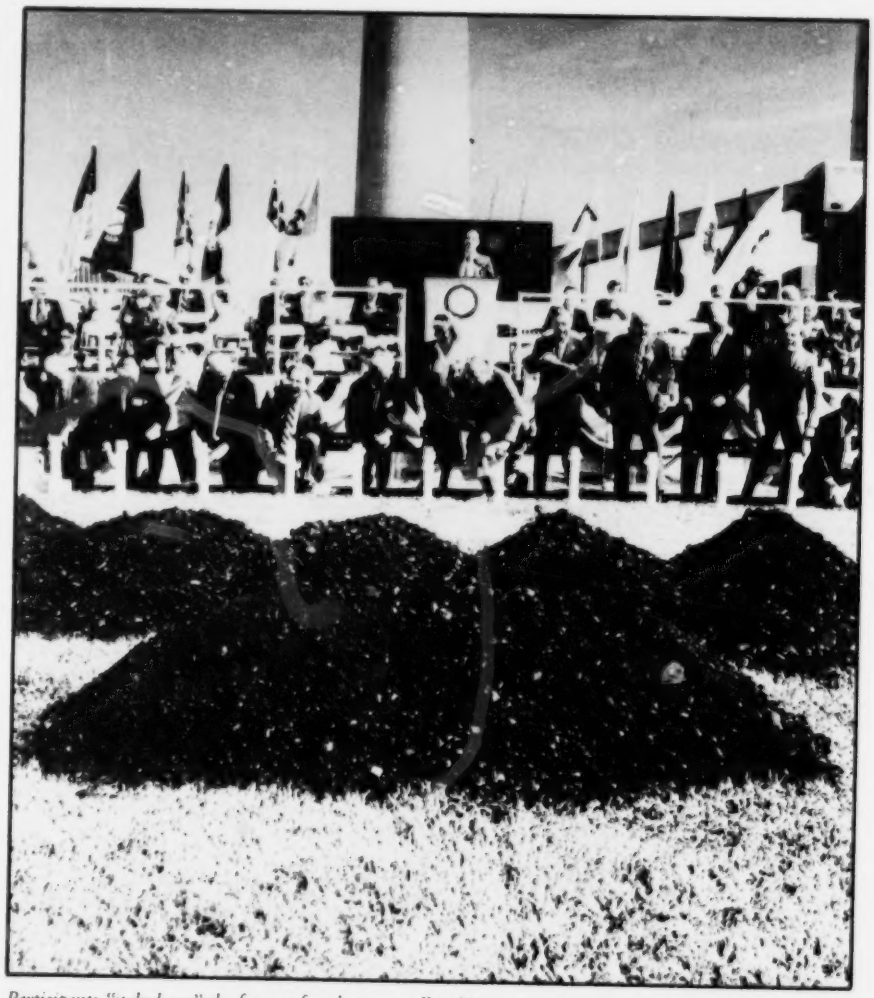
The programs also serve to develop innovative, new technologies and techniques to enhance environmental qualities and to provide for regional, resource-based economic development.

TVA historically has been an effective national leader in energy technology. To continue and enhance this role, TVA is conducting outfront research in new generation, environmental quality, environmental effects, efficient end use, and conservation measures.

Atmospheric fluidized-bed combustion (AFBC) is an advanced coal-burning process that provides a method of burning coal economically and in an environmentally acceptable manner. During 1985, the 20-MW AFBC pilot plant constructed by TVA at the Shawnee Fossil Plant at Paducah, Kentucky, continued to provide valuable results to support design of a 160-MW AFBC demonstration plant. The original 4-year test program, begun in 1982, is nearing completion.

Groundbreaking ceremonies for the demonstration plant, also located at the Shawnee site, were held in September 1985. Construction is expected to be completed in 1988, to be followed by a 4-year test program. This schedule should allow the industry the option of selecting an AFBC coal-fired plant as new or retrofitted power in the mid-1990s.

During the year, TVA continued to evaluate various load management and renewable energy resource proposals in order to reduce future demand and thus reduce the need for additional generating capacity. Under the Innovative Energy Conservation Research Program, proposals for innovative conservation concepts were solicited and the most promising ones were funded.



Participants "staked out" the future of coal at groundbreaking ceremonies for a 160-MW AFBC demonstration plant at Shawnee Fossil Plant near Paducah, Kentucky.

In 1985, TVA was in the fifth cycle of soliciting and funding proposals. Reflective barriers used to augment fibrous insulation in attics are being evaluated to determine energy-saving potential. In addition, TVA is evaluating various end-use technologies, such as ground-source heat pumps and air-conditioner precoolers, to determine their potential as a tool for conservation.

The major objective of research in the area of current system operations is to reduce the cost of operating and maintaining the current system. Projects underway during the year included installation of targeted chlorination systems, improved current transformers, continuous online nuclear analyzer of coal (CONAC), rapid sulfur meters (RSM), and the increased use of microprocessors.

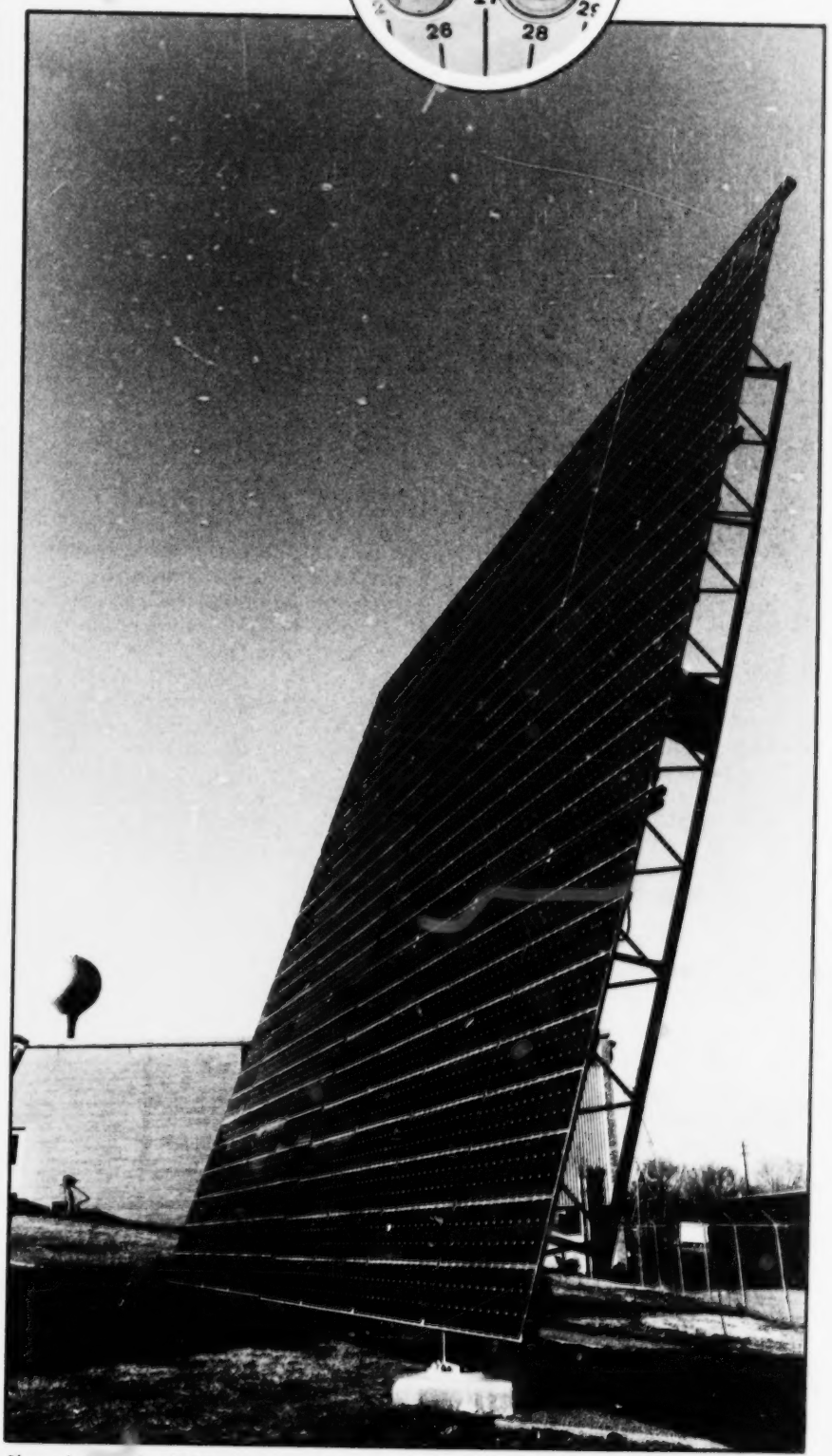
Targeted chlorination is a procedure for controlling biological fouling, such as the growth of algae in condenser tubing, a major cause of lost generation. Favorable results from a system installed at the Kingston Fossil Plant in 1983 led to the installation of a similar system at the John Sevier Fossil Plant during 1985.

C. H. "Chili" Dean, TVA Chairman, welcomed guests to the AFBC celebration.

AFBC

CONAC is being tested under joint sponsorship of TVA and EPRI. CONAC is capable of providing a complete analysis of coal constituents in near real time and has numerous potential uses, such as optimizing sulfur emissions and optimizing heat rate from coal combustion at electrical generating plants.

RSM is currently being tested for suitability as a process control instrument at the Paradise Coal Preparation Plant. Successful use of RSM will allow TVA to get the maximum heat or Btu's out of coal while also bringing sulfur emissions to an environmentally acceptable level.



Photovoltaic panel at TVA's Energy Use Test Facility in Chattanooga, Tennessee.

. . . To increase Public confidence . . .

Environmental Assessment and Control Measures

Although tremendous strides have been made in the area of environmental control, the job has not been completed. Since 1984, TVA has had the systems in place to enable compliance with current environmental regulations. The near-term emphasis is now on methods to reduce the cost of meeting these regulations. A technical task force was established in 1985 to fine tune operation of the limestone scrubbers installed on four large plants.

TVA's dry flue gas desulfurization (DFGD) research, utilizing a 1-to-2-MW DFGD pilot plant, was very successfully conducted at the Shawnee Test Facility. Operation of this facility will be continued until it is replaced with a 10-MW lime spray dryer to be used in conjunction with an electrostatic precipitator. Construction of the larger unit should be completed in 1986 and will be followed by a 3-year test program. EPRI will assist TVA with this work.

TVA constructed a wetland at its Fabius Coal Washing Plant in Alabama during 1985 to assess a potentially cost-effective method of treating acid seepage and drainage prevalent in mined areas and at coal-fired plants. Tests during the year indicated that the wetland reduced concentrations of total iron, manganese, and suspended solids to well below permit limitations. Low construction costs and the potential for long-term, maintenance-free treatment have encouraged additional wetland construction and research at the Fabius site and at fossil-fueled steam plants for treatment of plant-related water pollution.

Wetland at Fabius Coal Washing Plant in Alabama tests effectiveness of a "natural" system of treating aci seepage and drainage prevalent in mined areas and at coal-fired plants.

Load Management

TVA conducts field demonstrations and laboratory tests to look at technologies that may modify the system's load shape and improve the load factor and thereby help to keep rates at the lowest possible level. A demonstration was conducted during the summer of 1985 through which TVA provided a rebate to customers who purchased high-efficiency air-conditioners. By promoting the sale of high-efficiency units over conventional ones, TVA can reduce its peak summer load.

In a demonstration geared to shifting load from one period to another, 14 C&I heat and cool storage systems were evaluated during 1985.

Dispersed generation, along with conservation, is a mechanism to reduce load at all times of the day. In 1985, a 10-kilowatt, dual-axis, tracking photovoltaic system was installed at TVA's Energy Use Test Facility to be included in the testing of the five other systems installed there. The purpose of the test is to determine the effect of these photovoltaic systems on distribution utility operations and to evaluate whether the systems are reliable and efficient.

Plasma processing of nonferrous scrap metal is being developed with Mississippi State University.

Performance and potential of electric vehicles is monitored at TVA's Electric Vehicle Test Facility in Chattanooga, Tennessee.

Regional Economic Development

TVA makes a substantial contribution to the economic health of the Valley and to the Nation by supporting the development of new technologies. In 1985, TVA participated in electrotechnology projects to assist the metal recycle, plastic, glass, furniture, coal, and chemical industries.

A microwave processing of plastics project was nearly completed by Mississippi State University (MSU). And two Valley industries have expressed interest in continuing the process development at the pilot-plant level.

Plasma processing of nonferrous scrap metal also is being developed at MSU, and a project to develop radio frequency drying of wood for the furniture industry is underway.

TVA continued the development and demonstration of electric vehicles. The major potential impact of the program is as a load management tool to balance onpeak loads and reduce the overall costs of power generation. Electric vehicles also can have a regional and national impact through the reduction in the use of depletable natural resources, such as oil. To date, TVA has tested and evaluated 43 electric vehicles (16 different types) and 15 battery candidates. These activities provide valuable information to vehicle and battery manufacturers and users by quantifying technological progress and by indicating areas for future research and development. And, this data will help to advance electric vehicle commercialization into the early 1990s.

Economic development could result as spin-offs of TVA research or demonstrations. For example, TVA's operation of the Electric Vehicle Test Facility would be conducive to the establishment of electric vehicle production in the Valley. Electrotechnology projects should lead to regional centers of technical expertise that create employment opportunities. The fuel cell project could lead to the manufacture of components in the Valley. TVA's wood burning heater demonstration could encourage expansion of the wood industry.

. . . To realize we are all servants of the Public . . .

Unit 1 at Sequoyah Nuclear Plant near Chattanooga set a continuous operating record for large generating units—197 days.

Fiscal year 1985 was a period of unprecedented contrast and controversy for TVA's nuclear program. Although it will be remembered as the year all of TVA's nuclear plants were idled, it was also the year that saw Sequoyah unit 1 set a 197-day continuous operating record for TVA generating units larger than 500 megawatts. On April 11, unit 1 surpassed the 195-day record set two years earlier by Sequoyah unit 2. Despite this performance, however, closer attention to regulatory issues by both TVA and the NRC dominated nuclear activities during the year and culminated in TVA's decision to keep all of its nuclear units offline until the problems could be corrected.

TVA decided in March not to restart any of the three Browns Ferry units until a thorough evaluation could be performed to identify and correct the root causes of recurring violations. All of the units were out of service at the time for maintenance, refueling, or modifications. At the end of the fiscal year, the evaluation was in progress.

In August, TVA voluntarily shut down both Sequoyah units from full power. Although the units had been operating without problems, questions were raised by a consultant about the adequacy of TVA's documentation of safety-related electrical components. In the interest of safety first, TVA decided not to restart Sequoyah until the components were proven fully qualified for operation in the event of an accident.

Responding to the problems, the TVA Board took decisive action to put the nuclear program on solid ground and to restore public confidence.

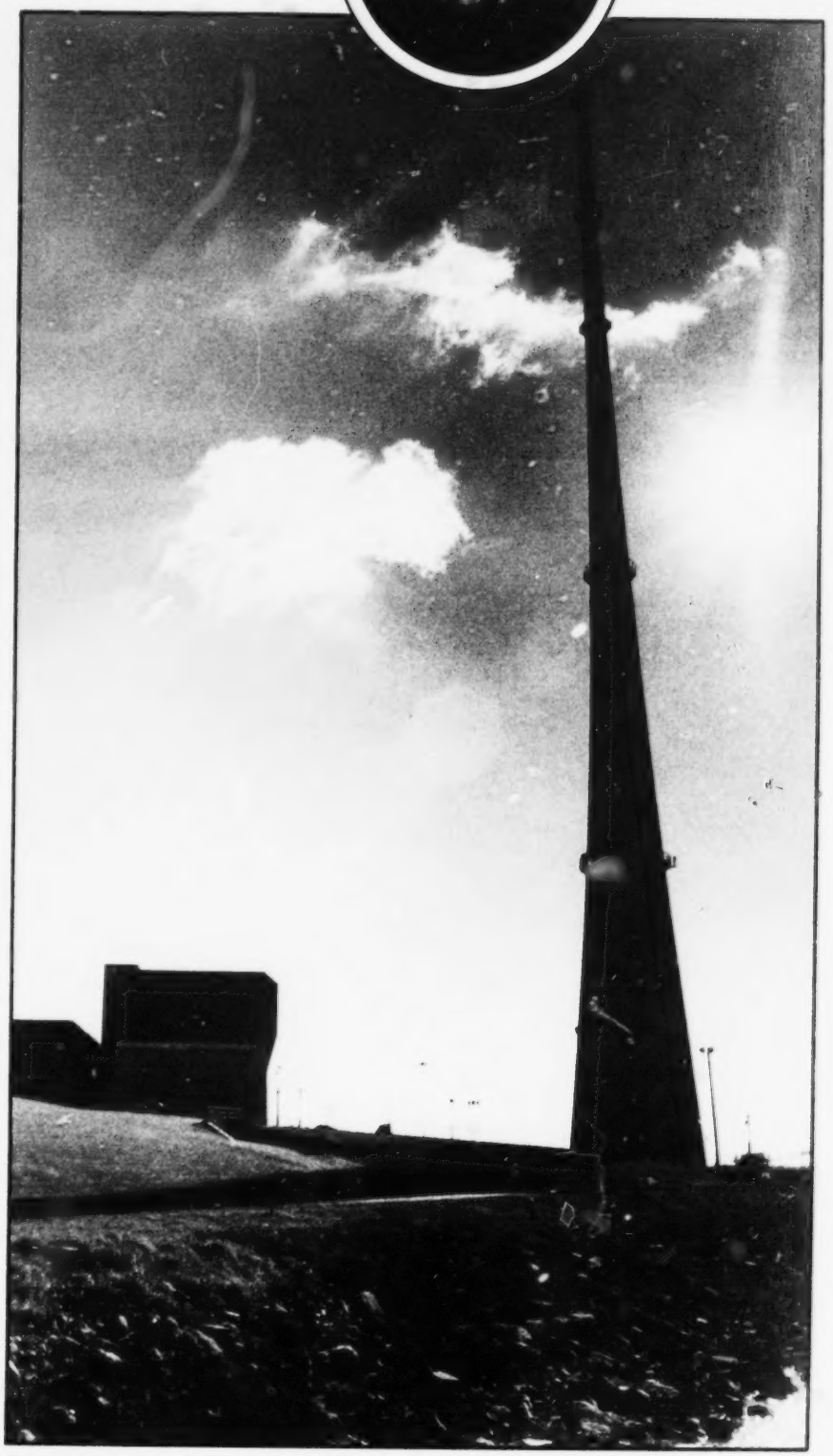
Nuclear activities were administratively separated from the rest of the TVA power program in June to focus greater management attention on problem areas.

At the plant level, the major focus was on an exhaustive process of identifying and solving problems. At Browns Ferry, the Regulatory Performance Improvement Program (RPIP), begun in 1984, made progress in examining all problem areas at the

plant. Due to be closed out in early 1986, RPIP has been responsible for numerous improvements being incorporated into line organization responsibilities. By the end of the fiscal year, Browns Ferry employees were working millions of man-hours to revise plant procedures, examine equipment, and perform major modifications on many of the plant's safety systems.

At Sequoyah, workers began a detailed review of TVA's environmental qualification program. During the shutdown, a major refueling and maintenance outage was moved up for unit 1, with other maintenance activities proceeding on unit 2.

TVA also took steps to improve the qualifications of nuclear managers and employees throughout the nuclear program. Key management changes were made at the plants and in the central offices. Skilled midlevel managers were recruited from other utilities to join TVA's nuclear management. TVA also started a program to fill key positions with personnel who have nuclear operating experience and to upgrade the

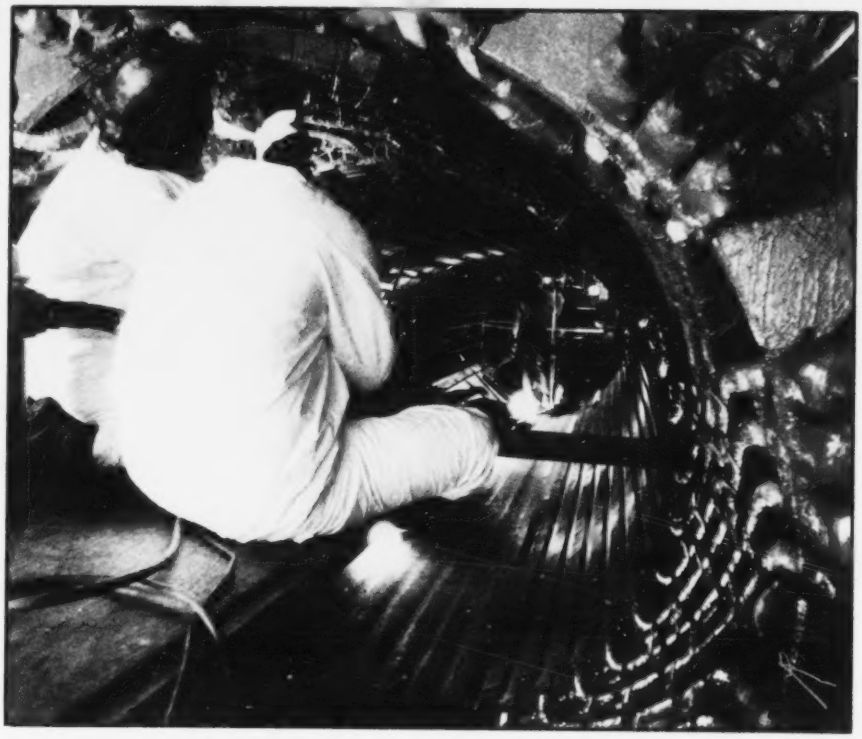


Browns Ferry Nuclear Plant near Decatur, Alabama.

qualifications of reactor operators. Seven plant operations employees entered degree programs at the University of Tennessee at Chattanooga, which brought the total number in these programs to 21. In addition, 16 degreed engineers entered TVA's senior operator license program.

In April, ground was broken at Browns Ferry on a new training building which will house the control room simulator, computer equipment, and classrooms, as well as a visitor center. The classrooms and other facilities will support training programs for managers, reactor operators, engineers, technicians, and general employees. Construction is expected to be complete in December 1986.

Overall, Browns Ferry and Sequoyah generated 17.7 billion kilowatthours of electricity during fiscal year 1985, representing 17 percent of the power system's total production. This was a decrease from last year's generation of 25 billion kilowatthours.



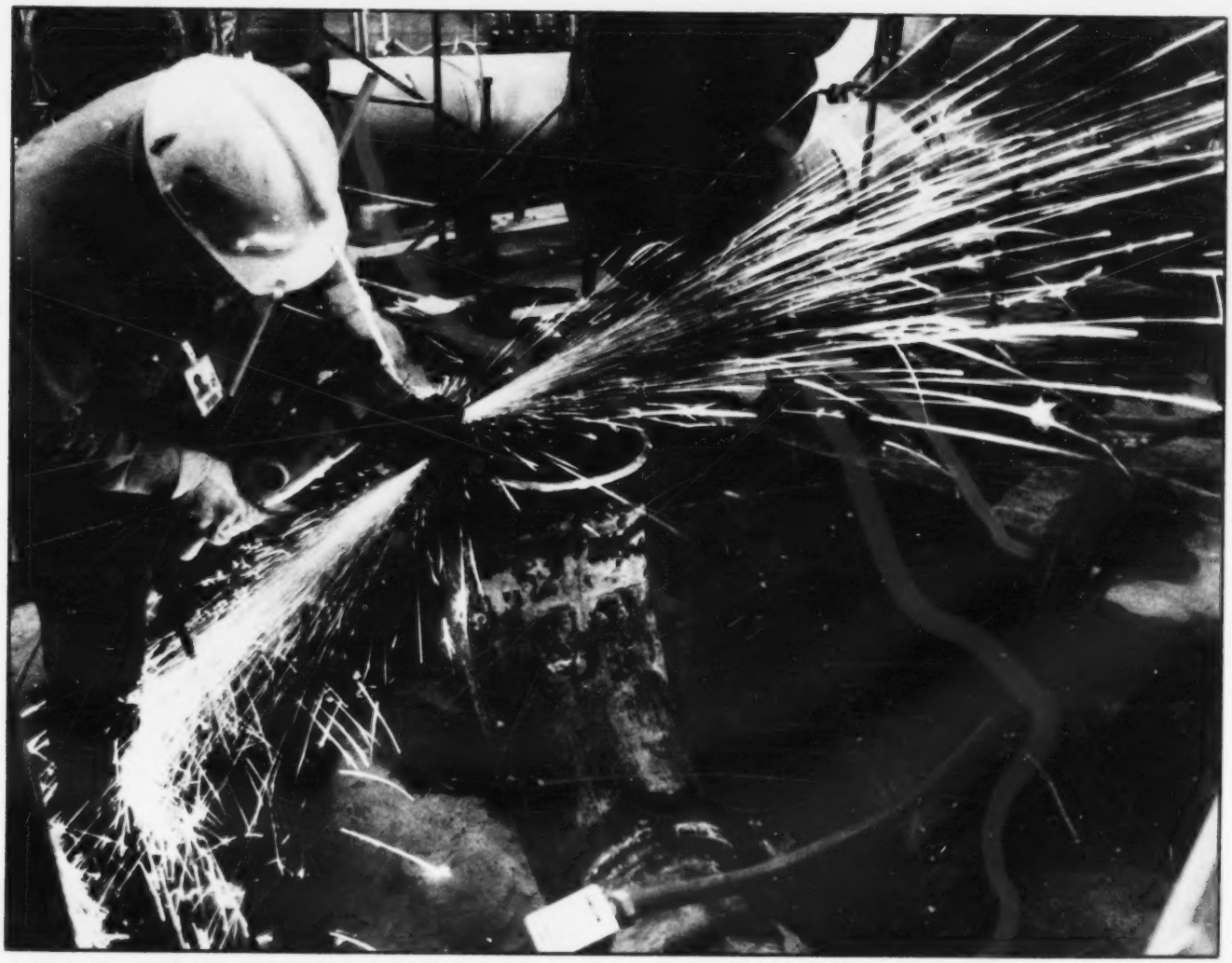
During a maintenance outage on Sequoyah unit 1 employees work inside the giant turbine.

Nuclear Construction

TVA postponed seeking a license to load fuel into the first Watts Bar unit until safety-related employee concerns could be resolved. TVA retained an outside contractor to interview all employees associated with Watts Bar and to identify and categorize their concerns. Ultimately, TVA plans to establish its own employee concerns program at Watts Bar, as well as at the other nuclear plants and major program offices. Construction work continued on unit 2, which was 80-percent complete and scheduled for fuel loading in 1987.

While fuel loading for Watts Bar unit 1 was on hold, plant workers moved ahead on modification work that could shorten refueling and modification outages in the future. Many of the modifications being performed were originally scheduled to be completed by the end of the unit's first refueling outage, including modifications to the four steam generators and control room design. The plant staff also revised operating and emergency procedures to reflect NRC recommendations and the most up-to-date industry practices.

TVA announced in July that the construction schedule for Bellefonte Nuclear Plant would be extended because forecasts showed that the power system would not need additional generating capacity until the mid-1990s. The action had the immediate effect of reducing the 1986 capital budget by $110 million and directing much-needed resources to Watts Bar. By the end of the fiscal year, Bellefonte unit 1 was 83-percent complete and unit 2 was 54 percent complete.



Feedwater heater pipe installation at Sequoyah Nuclear Plant.

Generating Capacity on September 30, 1985

TVA Hydro Plants	No. Units	Installed Capacity kW
Appalachia	2	82,800
Blue Ridge	1	20,000
Boone	3	76,400
Chatuge	1	10,000
Cherokee	4	135,180
Chickamauga	4	120,000
Douglas	4	120,600
Fontana	3	238,500
Fort Loudoun	4	139,140
Fort Patrick Henry	2	36,000
Great Falls	2	31,860
Guntersville	4	115,200
Hiwassee	2	117,100
Kentucky	5	175,000
Melton Hill	2	72,000
Nickajack	4	103,950
Norris	2	100,800
Nottely	1	15,000
Ocoee #1	5	18,000
Ocoee #2	2	21,000
Ocoee #3	1	28,800
Pickwick	6	224,080
South Holston	1	38,500
Tims Ford	1	45,000
Watauga	2	57,600
Watts Bar	5	166,500
Wheeler	11	375,300
Wilbur	4	10,700
Wilson	21	629,840
Total	109	3,324,850

TVA Coal-Fired Plants	No. Units	Installed Capacity kW
Allen	3	990,000
Bull Run	1	950,000
Colbert	5	1,350,000
Cumberland	2	2,600,000
Gallatin	4	1,255,200
John Sevier	4	800,000
Johnsonville	10	1,485,200
Kingston	9	1,700,000
Paradise	3	2,558,200
Shawnee	10	1,750,000
Watts Bar	4	240,000
Widows Creek	8	1,968,760
Total	63	17,647,360
TVA Nuclear Plants		
Browns Ferry	3	3,456,000
Sequoyah	2	2,441,160
Total	5	5,897,160
TVA Pumped-Storage		
Raccoon Mountain	4	1,530,000
TVA Combustion Turbine Plants		
Allen	20	620,800
Colbert	8	476,000
Gallatin	4	325,200
Johnsonville	16	1,088,000
Total	48	2,510,000
Tapoco Dams (4)		326,500
Corps of Engineers Dams (8)		853,000
Total System in Service		32,088,870

COOPERS
& LYBRAND

certified public accountants

To the Board of Directors of
Tennessee Valley Authority:

We have examined the balance sheets (power program and all programs) of *Tennessee Valley Authority* as of September 30, 1985 and 1984, and the related statements of income and retained earnings (power program), net expense and accumulated net expense (nonpower programs), and changes in financial position (power program and all programs) for each of the three years in the period ended September 30, 1985, which appear on pages 28 through 43 herein. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of the power program and all programs of Tennessee Valley Authority as of September 30, 1985 and 1984, and the results of operations of the power program and nonpower programs and the changes in financial position of the power program and all programs for each of the three years in the period ending September 30, 1985, in conformity with generally accepted accounting principles applied on a consistent basis.

COOPERS & LYBRAND

Knoxville, Tennessee
November 27, 1985

Balance Sheets
September 30, 1985 and 1984

ASSETS

	Power program		All programs	
	1985	1984	1985	1984
	(Thousands of Dollars)			
PROPERTY, PLANT, AND EQUIPMENT				
substantially all at original cost				
Completed plant; schedule A				
Multipurpose dams; note 2	$ 551,014	$ 541,066	$ 1,423,062	$ 1,407,133
Single-purpose dams	386,599	386,974	386,599	386,974
Steam production plant	3,998,043	3,771,947	3,998,043	3,771,947
Nuclear production plant	2,892,435	2,715,051	2,892,435	2,715,051
Other electric plant	2,880,195	2,878,304	2,880,195	2,878,304
Other plant	—	—	299,241	283,506
	10,708,286	10,293,342	11,879,575	11,442,915
Less accumulated depreciation and depletion; note 1	3,192,518	2,842,136	3,433,860	3,067,431
Completed plant, net	7,515,768	7,451,206	8,445,715	8,375,484
Construction in progress; note 4	7,616,985	6,526,589	7,834,223	6,743,958
Capital lease assets; note 5	1,697,207	1,617,182	1,697,207	1,617,182
Nuclear fuel	671,165	548,210	671,165	548,210
Less accumulated amortization; note 1	652,659	527,924	652,659	527,924
Nuclear fuel, net	18,506	20,286	18,506	20,286
Total	16,848,466	15,615,263	17,995,651	16,756,910
INVESTMENT FUNDS				
at amortized cost; note 7	328,504	145,123	328,504	145,123
CURRENT ASSETS				
Cash	136,864	131,485	251,427	261,310
Accounts receivable	481,285	606,429	496,128	620,870
Inventories, principally at average cost	565,024	693,797	581,553	709,460
Total	1,183,173	1,431,711	1,329,108	1,591,640
DEFERRED CHARGES AND OTHER ASSETS				
Loans and other long-term receivables	287,748	312,197	330,013	349,924
Unamortized cost of cancelled nuclear generating units; note 6	2,627,608	2,865,099	2,627,608	2,865,099
Mine and mill development costs, net; note 1	159,948	196,294	159,948	196,294
Energy conservation costs, net; note 1	76,403	73,661	76,403	73,661
Unamortized debt issue and reacquisition expense; note 1	5,391	5,966	5,391	5,966
Other deferred charges	15,794	—	15,794	—
Total	3,172,892	3,453,217	3,215,157	3,490,944
Total assets	$21,533,035	$20,645,314	$22,868,420	$21,984,617

Notes 1 through 14 following the exhibits are an integral part of the financial statements.

CAPITALIZATION AND LIABILITIES

	Power program		All programs	
	1985	1984	1985	1984
	(Thousands of Dollars)			
PROPRIETARY CAPITAL				
Appropriation investment; note 8				
Congressional appropriations	$ 1,419,362	$ 1,419,426	$ 4,291,314	$ 4,166,207
Transfers of property from other Federal agencies, net	23,773	23,795	59,538	58,402
	1,443,135	1,443,221	4,350,852	4,224,609
Less repayments to General Fund of the U.S. Treasury; note 9	615,059	595,059	656,876	636,785
Appropriation investment	828,076	848,162	3,693,976	3,587,824
Retained earnings reinvested in the power program	1,830,454	1,500,584	1,830,454	1,500,584
Accumulated net expense of nonpower programs	—	—	(1,611,533)	(1,482,155)
Total	2,658,530	2,348,746	3,912,897	3,606,253
LONG-TERM DEBT				
Principal; note 10	15,525,000	14,525,000	15,525,000	14,525,000
Less unamortized discount; note 1	3,796	4,172	3,796	4,172
Total	15,521,204	14,520,828	15,521,204	14,520,828
OTHER LIABILITIES				
Capital lease obligations; note 5	1,695,422	1,615,543	1,695,422	1,615,543
Decommissioning of nuclear plant; note 1	66,837	41,302	66,837	41,302
Reclamation of coal properties	16,241	11,792	16,241	11,792
Cancellation costs for nuclear generating units; note 6	56,045	127,555	56,045	127,555
Total	1,834,545	1,796,192	1,834,545	1,796,192
CURRENT LIABILITIES				
Short-term debt; note 10				
U.S. Treasury	150,000	150,000	150,000	150,000
Federal Financing Bank	481,000	685,000	481,000	685,000
Short-term debt	631,000	835,000	631,000	835,000
Current maturities of long-term debt; note 10	100,000	—	100,000	—
Current portion of capital lease obligations; note 5	1,785	1,639	1,785	1,639
Accounts payable	397,494	752,159	443,214	804,708
Employees' accrued leave	28,202	34,281	60,546	51,812
Payrolls accrued	12,647	23,647	15,601	35,363
Interest accrued	347,628	332,822	347,628	332,822
Total	1,518,756	1,979,548	1,599,774	2,061,344
COMMITMENTS AND CONTINGENCIES; notes 4, 12, and 14				
Total capitalization and liabilities	$21,533,035	$20,645,314	$22,868,420	$21,984,617

Statements of Income and Retained Earnings
Power Program
For the years ended September 30, 1985, 1984 and 1983

	1985		1984		1983	
	kWh	Amount	kWh	Amount	kWh	Amount
				(Thousands)		
OPERATING REVENUES						
Sales of electric energy						
Municipalities and cooperatives	82,155,187	$3,272,255	80,700,297	$3,139,653	76,305,236	$2,936,006
Federal agencies; note 13	5,216,229	565,898	11,162,287	648,847	16,352,790	693,909
Industries	15,424,411	628,995	16,455,426	685,249	13,065,280	583,180
Electric utilities	391,205	15,837	317,950	14,358	157,764	7,958
Interdivisional	356,863	15,586	390,224	16,997	352,705	15,116
Revenue credit due customers	—	—	—	(150,000)	—	(152,000)
Total sales of electric energy	103,543,895	4,498,571	109,026,184	4,405,104	106,233,775	4,084,169
Rents		25,949		27,847		16,525
Discounts and penalties		1,265		3,168		2,244
Other miscellaneous revenues		21,701		16,951		11,381
Total operating revenues		4,547,486		4,453,070		4,114,319
OPERATING EXPENSES						
Production						
Fuel		1,427,148		1,362,851		1,357,530
Other		556,950		495,868		392,897
Transmission		43,139		43,210		42,000
Customer accounts; note 14		(11,242)		24,743		18,866
Power consumer services		18,189		20,262		17,684
Demonstration of power use		24,348		18,027		15,871
Research, development, and demonstrations		52,105		40,918		60,927
General and administrative		215,360		186,104		167,045
Payments in lieu of taxes		188,248		170,172		165,193
Amortization of loss on cancelled nuclear generating units; note 6		—		145,000		—
Provision for depreciation		287,566		267,388		247,054
Total operating expenses		2,801,811		2,774,543		2,485,067
Operating income		1,745,675		1,678,527		1,629,252
OTHER INCOME AND DEDUCTIONS						
Interest income		33,216		28,946		8,466
Abandonment of uranium properties		(117,000)		—		—
Charge related to loss on cancelled nuclear generating units; note 6		(180,690)		(800,000)		(204,168)
Other, net		(21,595)		(15,467)		(2,725)
Total other income and deductions		(286,069)		(786,521)		(198,427)
Income before interest charges		1,459,606		892,006		1,430,825
INTEREST CHARGES						
Interest on long-term debt		1,547,996		1,508,975		1,437,271
Other interest expense		61,867		49,483		52,363
Allowance for borrowed funds used during construction; note 1		(577,645)		(532,976)		(498,301)
Amortization of long-term debt discount and expense; note 1		972		973		988
Net interest charges		1,033,190		1,026,455		992,321
NET INCOME (LOSS)		426,416		(134,449)		438,504
Return on appropriation investment; note 9		96,546		93,657		106,567
Increase (decrease) in retained earnings reinvested		329,870		(228,106)		331,937
Retained earnings reinvested at beginning of period		1,500,584		1,728,690		1,396,753
Retained earnings reinvested at end of period		$1,830,454		$1,500,584		$1,728,690

Certain operating expenses for 1984 and 1983 have been reclassified for comparative purposes.
Notes 1 through 14 following the exhibits are an integral part of the financial statements.

Statements of Net Expense and Accumulated Net Expense
Nonpower Programs
For the years ended September 30, 1985, 1984 and 1983

	1985	1984	1983
		(Thousands of Dollars)	
GENERAL RESOURCES DEVELOPMENT			
Navigation operations	$ 11,410	$ 11,097	$ 8,637
System flood control operations	9,040	10,000	9,229
Recreation development	7,886	15,989	7,933
Community preparedness	2,156	2,529	3,450
Regional water quality management	4,142	2,216	1,674
Fisheries and wildlife resources development	1,638	3,105	1,794
Environmental protection of public lands and water	970	1,049	964
Environmental education	515	927	625
Valley agricultural development	5,812	5,817	5,303
Renewable fuels research	5,444	2,635	1,970
Forest resources development	1,951	1,721	1,505
Acidic precipitation assessment	—	503	308
TVA lands planning	675	765	728
Townlift	850	788	1,179
Industrial skills development	3,354	6,202	2,152
Economic development and analysis	3,423	3,184	3,198
Waterway development and engineering assistance	1,635	4,571	1,744
Tennessee-Tombigbee waterway development	874	—	—
Special opportunities cities and counties program	4,264	1,182	2,204
Minority economic development	1,036	549	2,245
Floodplain management	350	1,109	2,579
Regional water and wastewater supply	1,568	1,273	—
Land Between The Lakes operations	8,422	9,639	8,514
Valley mapping and remote sensing	1,108	1,021	1,047
Other general resources development projects	676	688	592
Net expense of general resources development	79,199	88,559	69,574
FERTILIZER DEVELOPMENT; note 1			
Research and development	26,806	24,380	18,336
Fertilizer introduction			
Fertilizer industry demonstrations	4,058	3,624	3,552
Farm test demonstrations outside the Valley	1,540	1,486	1,878
Net expense of fertilizer introduction	5,598	5,110	5,430
Developmental production			
Cost of products distributed	30,398	40,413	36,680
General expenses			
Loss on retirements of manufacturing plant and equipment, net	474	126	145
Gain on sale of phosphate reserves, net	—	—	(181)
Removal of obsolete facilities	—	3,507	—
General and administrative	1,171	1,175	926
Other	1,670	1,549	1,724
Total general expenses	3,315	6,357	2,614
Total production expense	33,713	46,770	39,294
Less transfers and sales of products			
Transfers to other TVA programs, at market prices	16,225	24,426	20,312
Direct sales	500	434	362
Total transfers and sales	16,725	24,860	20,674
Net expense of developmental production	16,988	21,910	18,620
Net expense of fertilizer development	49,392	51,400	42,386
NATIONAL ENERGY DEMONSTRATIONS	152	(297)	32
OTHER EXPENSE, NET	635	1,022	(1,451)
NET EXPENSE	129,378	140,684	110,541
Accumulated net expense at beginning of period	1,482,155	1,341,471	1,230,930
Accumulated net expense at end of period	$1,611,533	$1,482,155	$1,341,471

Notes 1 through 14 following the exhibits are an integral part of the financial statements.

Statements of changes in Financial Position
For the years ended September 30, 1985, 1984 and 1983

	Power program			All programs		
	1985	1984	1983	1985	1984	1983
	(Thousands of Dollars)					
SOURCE OF FUNDS						
Program sources						
Net power income (loss)	$ 426,416	$ (134,449)	$ 438,504	$ 426,416	$ (134,449)	$ 438,504
Items not requiring funds; note a	20,000	750,546	20,000	20,000	750,546	20,000
Funds from power operations	446,416	616,097	458,504	446,416	616,097	458,504
Sale of power assets, principally nuclear fuel sales	120,806	137,399	183,795	120,806	137,399	183,795
Funds from power program; note b	567,222	753,496	642,299	567,222	753,496	642,299
Net expense of nonpower programs				(129,378)	(140,684)	(110,540)
Add items not requiring funds; note a				18,641	18,592	9,849
Funds used in nonpower operations				(110,737)	(122,092)	(100,691)
Sale of nonpower facilities				1,809	975	1,592
Funds used in nonpower programs				(108,928)	(121,117)	(99,099)
Debt sources						
Long-term bonds						
Issues	1,100,000	250,000	850,000	1,100,000	250,000	850,000
Reclassification of current maturities	(100,000)	—	—	(100,000)	—	—
Short-term notes						
Issues	31,799,000	8,275,000	2,855,000	31,799,000	8,275,000	2,855,000
Redemptions	(32,003,000)	(8,155,000)	(2,875,000)	(32,003,000)	(8,155,000)	(2,875,000)
Total debt sources	796,000	370,000	830,000	796,000	370,000	830,000
Other sources						
Recovery of mine and mill development costs through litigation	—	56,000	—	—	56,000	—
Recovery of costs of cancelled and deferred nuclear units	19,970	25,955	28,094	19,970	25,955	28,094
Liability for disposal of spent nuclear fuel	—	—	95,834	—	—	95,834
Liability for cancellation costs for nuclear generating units, net of adjustments	(36,831)	(214)	(70,416)	(36,831)	(214)	(70,416)
Congressional appropriations	234	1,285	1,141	125,107	85,629	216,433
Property transfers	(22)	(110)	59	1,136	(137)	400
Capital lease obligations	79,878	135,423	187,245	79,878	135,423	187,245
Total other sources	63,229	218,339	241,957	189,260	302,656	457,590
Total source of funds	$ 1,426,451	$1,341,835	$1,714,256	$ 1,443,554	$1,305,035	$1,830,790

Notes 1 through 14 following the exhibits are an integral part of the financial statements.

	Power program			All programs		
	1985	1984	1983	1985	1984	1983
	(Thousands of Dollars)					
DISPOSITION OF FUNDS						
Expended for plant and equipment, excluding allowance for borrowed funds used	$1,029,578	$ 863,242	$1,228,271	$1,056,808	$ 919,586	$1,295,626
Less:						
Depreciation and depletion allowances charged to construction clearing accounts and other asset categories	12,355	10,872	10,458	14,407	12,966	12,641
Cost of removing retired facilities and salvage from retained materials	(8,282)	(7,998)	(6,816)	(8,794)	(9,270)	(7,118)
	1,025,505	860,368	1,224,629	1,051,195	915,890	1,290,103
Capital lease assets	80,024	135,546	187,371	80,024	135,546	187,371
Payments to U.S. Treasury; note 9						
Return on appropriation investment	96,546	93,657	106,567	96,546	93,657	106,567
Repayments of appropriation investment	20,000	20,000	20,000	20,091	20,000	20,000
	116,546	113,657	126,567	116,637	113,657	126,567
Investment of funds	155,634	42,691	43,995	155,634	42,691	43,995
Changes in other assets and liabilities						
Loans and other long-term receivables (net of $19,506 writeoff for uranium properties)	(4,943)	32,888	(15,516)	(406)	32,641	(17,335)
Spent nuclear fuel disposal costs	—	172,616	102,869	—	172,616	102,869
Mine and mill development cost	12,543	9,117	(1,603)	12,543	9,117	(1,603)
Energy conservation cost	31,973	29,976	32,524	31,973	29,976	32,524
Cancellation costs for nuclear generating units, net of adjustments	(36,831)	(214)	(70,416)	(36,831)	(214)	(70,416)
Payment of cancellation costs for nuclear generating units	34,679	21,324	14,148	34,679	21,324	14,148
Other	3,068	—	—	3,068	—	—
	40,489	265,707	62,006	45,026	265,460	60,187
Changes in working capital (increase or decrease)						
Cash	5,379	71,504	(5,449)	(9,883)	(9,159)	50,800
Accounts receivable	(125,144)	155,887	(56)	(124,742)	154,127	4,828
Inventories	(128,773)	(74,034)	(20,863)	(127,907)	(74,320)	(27,351)
	(248,538)	153,357	(26,368)	(262,532)	70,648	28,277
Less other current liabilities (excluding short-term debt, including current maturities of long-term debt)	(256,791)	229,491	(96,056)	(257,570)	238,857	(94,290)
	8,253	(76,134)	69,688	(4,962)	(168,209)	122,567
Total disposition of funds	$1,426,451	$1,341,835	$1,714,256	$1,443,554	$1,305,035	$1,830,790

Statement of Changes in Financial Position (continued)
For the years ended September 30, 1985, 1984 and 1983

NOTES:

a. Items not requiring funds:

	Power			Nonpower		
	1985	1984	1983	1985	1984	1983
	(Thousands of Dollars)					
Provision for depreciation	$ 287,566	$ 267,388	$ 247,054	$17,813	$16,216	$9,885
Amortization of loss on cancelled nuclear units	180,690	145,000	204,168	—	—	—
Charge related to loss on cancelled nuclear generating units	—	800,000	—	—	—	—
Net loss (gain) on retirements and disposals of property, plant, and equipment	3,152	2,636	2,725	828	5,066	(36)
Loss on sale of investment	—	8,593	—	—	—	—
Abandonment of uranium properties	117,000	—	—	—	—	—
Amortization of energy conservation cost	29,231	24,418	30,297	—	—	—
Provision for lease payments	619	—	—	—	—	—
Provision for writeoff of uranium properties	16,500	20,850	20,850	—	—	—
Provision for reclamation and other costs of coal properties	3,830	11,792	—	—	—	—
Provision for disposal of spent fuel	—	—	7,537	—	—	—
Provision for decommissioning nuclear plants	25,535	9,550	4,968	—	—	—
Provision for recoverable long-term advances	—	—	—	—	(2,690)	—
Reclassification of prior years' costs	(28,364)	—	—	—	—	—
Allowance for recovery of operating expense	(11,340)	—	—	—	—	—
Amortization of long-term debt discount and expense	972	973	988	—	—	—
Amortization of discount on decommissioning fund investments	(18,443)	(7,678)	(286)	—	—	—
Amortization of discount on bond retirement fund investments	(9,303)	—	—	—	—	—
Allowance for borrowed funds used during construction	(577,645)	(532,976)	(498,301)	—	—	—
	$ 20,000	$ 750,546	$ 20,000	$18,641	$18,592	$9,849

b. Net power proceeds (see note 9) may be derived as follows:

	Year ended September 30		
	1985	1984	1983
	(Thousands of Dollars)		
Funds from power program	$ 567,222	$ 753,496	$ 642,299
Add interest	1,609,863	1,558,458	1,489,634
Net power proceeds	$2,177,085	$2,311,954	$2,131,933

Notes 1 through 14 following the exhibits are an integral part of the financial statements.

Notes to Financial Statements

1. **Summary of significant accounting policies**—Power accounts are kept in accordance with the uniform system of accounts prescribed by the Federal Energy Regulatory Commission.

Plant additions and retirements—Additions to plant are recorded at cost, which includes material, labor, overhead, and allowance for funds used. The costs of generation during preliminary operations prior to commercial acceptance, including amortization of nuclear fuel less credit for the fair value of energy generated, are also included in the recorded costs of steam and nuclear generating plants. Except for chemical plant, plant retirements (including original cost and removal cost less salvage) are charged against appropriate accumulated depreciation accounts.

Depreciation and depletion—Straight-line depreciation is provided for substantially on a composite basis. Rates of depreciation are derived from engineering studies of useful life and are reviewed each year. Depletion of coal land and landrights and phosphate land and mineral rights is provided on a unit of production basis.

Decommissioning—Provision for decommissioning costs of nuclear generating units is derived through engineering studies of useful life and estimated costs based on the dismantling/removal method. The cost estimates for decommissioning as provided in fiscal year 1985 were based on a current dollar value amounting to $95 million and $100 million per unit, respectively, for pressurized water and boiling water reactors.

Allowance for funds used—The practice of capitalizing an allowance for funds used during construction is followed in the power program. In accordance with the TVA Board of Directors' criteria for establishing wholesale power rates, the allowance is applicable to construction in progress excluding generating facilities in a deferred status. The amount of interest capitalized is limited to the amount of depreciation and other noncash charges less the amount of the repayment of the appropriation investment to the U.S. Treasury. The method used provides for the calculation each month of the interest on the most recent debt issues that are equivalent to the average balance of construction work in progress.

Repairs and maintenance—The cost of current repairs and minor replacements is charged to appropriate operating expense and clearing accounts, and the cost of renewals and betterments is capitalized.

Nuclear fuel—The cost of nuclear fuel is charged to operations on a unit of production basis in amounts equal to lease payments (the cost of fuel burned plus finance charges) and a provision for spent nuclear fuel disposal.

Valuation of investments—Investments are recorded at amortized cost. Discounts are amortized at the yield rate over the life of each instrument.

Energy conservation costs—Certain energy conservation program costs are deferred and charged to operations over a five-year period.

Mine and mill development costs—Deferred mine and mill development costs are assigned to coal inventory and nuclear fuel on a unit of production basis determined in relation to estimated ore reserves. Each year the investment in uranium properties is evaluated to determine if any costs related to these properties may not be recovered from future operations. Certain uranium properties were abandoned in the current year which resulted in a charge in 1985 of $117 million. The balance of the estimated costs not recoverable from operations, approximately $63 million at September 30, 1985, will be amortized over a four-year period beginning in fiscal year 1986.

Operating revenues—Revenues from the sale of electric energy are recorded only when billed. Revenue credits due customers are recorded in accordance with authorization of the Board of Directors.

Borrowing expenses—Issue and reacquisition expenses and discounts on power borrowings from the public are amortized on a straight-line basis over the term of the related securities. Issue expenses on power borrowings from the Federal Financing Bank are amortized over a five-year period except that amounts under six thousand dollars are expensed as incurred.

Sales of fertilizer—Sales of fertilizer materials are not made on a commercial basis, but are made to organizations collaborating in an experimental and educational program aimed at improving the manufacture, distribution, and use of fertilizers.

2. **Allocation of cost of multipurpose projects**—Section 14 of the TVA Act requires TVA's Board of Directors to allocate, subject to the approval of the President of the United States, the cost of completed multipurpose projects. The cost of facilities installed exclusively for a single purpose is assigned directly to that purpose; the cost of multiple-use facilities is allocated among the various purposes served.

The total investment of $1,423,062,000 in completed multipurpose dams at September 30, 1985, is classified as follows:

	Investment		
	Direct	Multiple-use	Total
		(Thousands)	
Power	$340,095	$210,919	$ 551,014
Navigation	288,743	165,344	454,087
Flood control	65,364	186,876	252,240
Recreation	6,473	115,152	121,625
Local economic development	144	43,952	44,096
Total	$700,819	$722,243	$1,423,062

3. Nuclear Power Program—Nuclear production plant at September 30, 1985, consists of the operating units at Browns Ferry (Alabama) and Sequoyah (Tennessee). There are a total of four units under construction at Watts Bar (Tennessee) and Bellefonte (Alabama). The following describes the status of these units at September 30, 1985.

Browns Ferry is a three-unit plant which was taken offline in March 1985 for certain plant modifications and regulatory improvements. The projected dates for resuming operations for each unit are: Unit Two - 1986, Unit Three - 1987, and Unit One - 1989.

Sequoyah is a two-unit plant which was taken offline in August 1985 when questions were raised about the adequacy of documentation for qualifying certain equipment for operation under emergency conditions. The current planned operation date for both units is early 1986.

Watts Bar is a two-unit plant currently under construction. The planned fuel loading date for Unit One is mid-1986 and for Unit Two is 1987. There have been certain safety issues raised by construction employees and other TVA employees that are currently being examined. While TVA believes that such issues can be resolved within the aforementioned timeframe, their resolution may defer issuance by the Nuclear Regulatory Commission (NRC) of the operating license for Unit One. The investment in the Watts Bar plant, which is included in construction in progress, at September 30, 1985, is approximately $3.44 billion.

By letter of September 17, the NRC imposed the requirement that certain information be furnished by TVA prior to further operations or licensing of any TVA nuclear units. In response to this request, on November 1, TVA supplied information specific to Sequoyah Nuclear Plant and corporate management. TVA is working to supply the information requested on the other plants.

Bellefonte is a two-unit plant currently under construction. The expected fuel loading dates for these units are 1993 and 1995. Because the projection of future electric power usage in the region has been reduced, construction activities on these units have been slowed. The costs being incurred for Unit One are for maintenance of systems already in place and certain minimum levels of construction. The costs being incurred for Unit Two are for the preservation of the current investment with minimal additional construction. The investment in the Bellefonte plant, which is included in construction in progress, at September 30, 1985, is approximately $3.40 billion.

While the above dates are subject to change, the costs associated with these plants will be recovered through rates charged to customers.

4. Construction projects—The construction budgets for fiscal years 1986, 1987, and 1988 are $1.4 billion, $1.3 billion, and $1.0 billion. Substantial commitments have been incurred for these projects. These estimates are reviewed and revised periodically to reflect changes in economic conditions and other factors considered in their determination.

The coal gasification project has been placed in a Defense energy reserve status. While additional construction activity has ceased, major contracts remain open subject to reactivation of the appropriation-financed project, the investment in which was approximately $113 million at September 30, 1985.

5. Capital leases—Nuclear fuel is obtained directly from vendors and through contractual arrangements providing for mining, milling, and fabrication of raw materials obtained

from land leased by TVA. Under an agreement entered into in 1980, TVA sells and leases back all nuclear fuel on hand except for that prior to the milling stage or in a spent condition. TVA leases property, plant, and equipment under lease agreements with terms ranging from one to thirty years. Under most of the agreements, TVA pays the property taxes, maintenance costs, and other costs of operation. Many of the agreements are the result of sale-leaseback arrangements. Most of the agreements include purchase options and/or renewal options which cover substantially all the economic lives of the properties.

As of September 30, 1985, capital leases have been reported retroactively on the balance sheet and statements of changes in financial position while rental expenses continue to be recorded in accordance with the rate-making process as provided by Financial Accounting Standards No. 71, Accounting for the Effects of Certain Types of Regulation. The following analyses pertain to capital and noncancelable lease agreements in effect at September 30, 1985 and 1984:

CAPITAL LEASES

Property	September 30 1985	1984
	(Thousands)	
Nuclear fuel	$1,637,200	$1,555,537
General plant	69,678	69,678
Total properties under capital leases	1,706,878	1,625,215
Accumulated provision for amortization of capital leases	9,671	8,033
Net properties under capital leases	$1,697,207	$1,617,182
Obligations under capital leases	$1,697,207 [a]	$1,617,182

FUTURE MINIMUM LEASE PAYMENTS

Fiscal Period	Capital Leases[b]	Noncancelable Operating Leases
1986	$ 7,480	$ 5,428
1987	7,480	5,067
1988	7,656	4,585
1989	7,597	4,042
1990	7,597	2,574
Thereafter	96,306	8,466
Total future minimum lease payments	134,116	$30,162
Less interest element included	74,109	
Present value of future minimum lease payments	$ 60,007	

a. Includes payments due in 1986 of $1.8 million, excluding nuclear fuel.

b. Excludes payments under nuclear fuel lease, which are based on the cost of nuclear fuel burned and financial charge.

Amortization of capital leases, including nuclear fuel, for the years ended September 30, 1985, 1984, and 1983 was $107,730,000, $124,857,000, and $111,280,000, respectively. Operating expenses for the same respective years included finance charges for capital leases in the amounts of $36,531,000, $35,700,000, and $26,238,000.

Rentals for all operating leases have been charged to clearing accounts, portions of which are charged to operations, for the years ended September 30, 1985, 1984, and 1983, in the amounts of $9,501,000, $7,318,000, and $6,709,000, respectively.

6. **Cancelled nuclear generating units**—In August 1982, the TVA Board of Directors approved cancellation of construction of four nuclear generating units, and in August 1984, approved the cancellation of four additional units. These units were at the Phipps Bend, Hartsville, and Yellow Creek sites. In accordance with the August 1984 Board action, the balance of the costs of the eight units, after a charge of $800 million to fiscal year 1984 expense, is being amortized over an 11-year period beginning with fiscal year 1985. The amortization schedule provides for a minimum of 6 percent to be applied to the $2.8 billion unamortized balance at September 30, 1984, and increases by 1 percent each year until the fifth year at which time it would be 10 percent, which will be the rate over the final seven years. The unamortized balance of these costs is being recovered through rates from customers and therefore is recorded as a deferred charge on the balance sheet.

7. **Investment funds**—TVA has made investments of power funds beginning in 1982 to provide for the accumulation of funds required for retirement of bonds and decommissioning of nuclear plants. Deposits into the funds have been made based upon annual calculations of the fund requirements considering rates of return, inflation, and projections of decommissioning costs. As of September 30, 1984, the existing portfolio of investments, including amounts previously invested in the bond retirement fund, was dedicated to the decommissioning fund as a prudent financial management decision based upon projected decommissioning fund needs and the ability of the portfolio to meet them. Additional investments for the decommissioning fund will be determined in accordance with the factors above for existing and new generating units. The fund balance at September 30, 1985, was $163,566,000.

The bond retirement investment fund, beginning in October 1984, is being funded through deposits calculated to yield adequate funds to retire $4.6 billion of debt in 2002. The deposits are being made over a period of 11 years coinciding with the amortization schedule for cancelled plant costs. The fund balance at September 30, 1985, was $164,938,000.

8. **Appropriation investment**—Changes in the appropriation investment during the years ended September 30, 1985 and 1984 were as follows:

	Power program		All programs	
	1985	1984	1985	1984
	(Thousands)			
Congressional appropriations, net	$ (64)	$ 5,071	$ 125,107	$ 85,629
Transfers of property from other Federal agencies	(22)	(110)	1,136	(137)
	(86)	4,961	126,243	85,492
Less repayments to General Fund of the U.S. Treasury	20,000	20,000	20,091	20,000
Increase or decrease for the period	(20,086)	(15,039)	106,152	65,492
Balance, beginning of period	848,162	863,201	3,587,824	3,522,332
Balance, end of period	$828,076	$848,162	$3,693,976	$3,587,824

An appropriation of $113 million for the fiscal year beginning October 1, 1985, has been approved.

9. Payments to the U.S. Treasury–Section 15d of the TVA Act requires the payment from net power proceeds of a return on the net appropriation investment in power facilities plus repayments of such investment, beginning with fiscal year 1961. The amount of return payable during each year is based on the appropriation investment as of the beginning of that year and the computed average interest rate payable by the U.S. Treasury on its total marketable public obligations as of the same date. The repayment schedule calls for payment of not less than $10 million for each of the first five years (1961-1965), $15 million for each of the next five years (1966-1970), and $20 million for each year thereafter until a total of $1 billion shall have been repaid. The payments required by Section 15d may be deferred under certain circumstances for not more than two years.

Required payments have been made as follows:

	Return	Repayment	Total
		(Thousands)	
Total to September 30, 1984	$1,508,303	$410,000	$1,918,303
Year ended September 30, 1985	96,546	20,000	116,546
	$1,604,849	$430,000	$2,034,849

For fiscal year 1986 the required payments will be $85,979,000 as a return on the appropriation investment at the computed average interest rate of 10.383 percent, and $20,000,000 as a repayment, a total of $105,979,000.

In addition to the payments from net power proceeds, certain nonpower proceeds are paid to the U.S. Treasury under the provisions of Section 26 of the TVA Act. During fiscal year 1985, payments of $91,000 were made, bringing the total payments from nonpower proceeds to $41,817,000.

Prior to 1961, under then existing legislation, TVA paid to the Treasury $185,059,000 of power proceeds. In addition to the repayments indicated in Exhibit I, $65,072,000 of bonds sold to the Treasury and Reconstruction Finance Corporation in fiscal years 1939-1941 have been fully repaid from power proceeds. Section 26 of the TVA Act provides for annual payments to the Treasury of any power or nonpower proceeds not needed for the operation of dams and reservoirs, the conduct of the power program, and the manufacture and distribution of fertilizers.

10. Borrowing authority–Section 15d of the TVA Act authorizes TVA to issue bonds, notes, and other evidences of indebtedness up to a total of $30 billion outstanding at any one time to assist in financing its power program. Debt service on these obligations, which is payable solely from TVA's net power proceeds, has precedence over the payment to the U.S. Treasury described in note 9. Issues outstanding on September 30, 1985, consist of the following:

		(Thousands)
Long-term debt		
Held by the public		
4-1/2%	1962 Series A, due February 1, 1987	$ 45,000
5.70%	1967 Series A, due May 15, 1992	70,000
6-3/8%	1967 Series B, due November 1, 1992	60,000
8-1/4%	1969 Series B, due October 15, 1994	100,000
7.30%	1971 Series B, due October 1, 1996	150,000
7%	1972 Series A, due January 1, 1997	150,000
7.35%	1972 Series B, due May 1, 1997	150,000
7.35%	1972 Series C, due July 1, 1997	150,000
7.40%	1972 Series D, due October 1, 1997	150,000

		(Thousands)
7.35%	1973 Series A, due January 1, 1998	100,000
7.35%	1973 Series B, due April 1, 1998	150,000
7-3/4%	1973 Series C, due July 1, 1998	150,000
7.70%	1973 Series D, due October 1, 1998	100,000
8.05%	1974 Series A, due January 1, 1999	100,000
		1,625,000
Federal Financing Bank		
8.05%	1975 Series A, due January 31, 1990	200,000
8.70%	1975 Series B, due March 31, 2000	100,000
8.35%	1975 Series C, due May 31, 1988	200,000
8.47%	1975 Series D, due July 31, 2000	200,000
8.485%	1975 Series E, due October 31, 2000	300,000
8.175%	1976 Series A, due February 28, 2001	300,000
7.97%	1976 Series B, due November 30, 2001	400,000
7.625%	1976 Series C, due January 31, 2002	200,000
7.975%	1977 Series A, due February 28, 2002	300,000
7.935%	1977 Series B, due May 31, 2002	400,000
8%	1977 Series C, due October 31, 2002	400,000
8.375%	1978 Series A, due January 31, 2003	400,000
9.296%	1979 Series A, due February 28, 1989	500,000
9.155%	1979 Series B, due May 31, 1987	500,000
9.195%	1979 Series C, due August 31, 2004	500,000
10.545%	1979 Series D, due October 31, 2004	400,000
11.225%	1980 Series A, due January 31, 2005	500,000
12.955%	1980 Series B, due March 31, 2005	500,000
10.475%	1980 Series C, due June 30, 2005	500,000
10.890%	1980 Series D, due August 31, 2005	500,000
12.425%	1980 Series E, due November 30, 2005	500,000
12.735%	1981 Series A, due March 31, 2011	500,000
12.925%	1981 Series B, due April 30, 2011	500,000
13.255%	1981 Series C, due June 30, 2011	500,000
14.905%	1981 Series D, due September 30, 2011	300,000
13.035%	1981 Series E, due December 31, 2011	650,000
13.565%	1982 Series A, due April 30, 2012	700,000
13.575%	1982 Series B, due May 31, 2012	300,000
14.125%	1982 Series C, due July 31, 2012	350,000
11.945%	1982 Series D, due September 30, 2012	100,000
10.725%	1982 Series E, due November 30, 2012	200,000
10.575%	1983 Series A, due January 31, 2013	150,000
10.575%	1983 Series B, due March 31, 2013	150,000
10.425%	1983 Series C, due May 31, 2013	100,000
11.685%	1983 Series D, due August 31, 2013	250,000
11.905%	1983 Series E, due January 31, 2014	150,000
12.055%	1984 Series A, due January 31, 2014	100,000
11.695%	1985 Series A, due January 31, 2015	100,000
12.095%	1985 Series B, due March 31, 2015	150,000
10.945%	1985 Series C, due May 31, 2015	150,000
10.725%	1985 Series D, due July 31, 2015	500,000
10.705%	1985 Series E, due September 30, 2015	200,000
Total long-term debt		13,900,000
		15,525,000

	(Thousands)
Short-term debt	
U.S. Treasury	150,000
Federal Financing Bank	481,000
Total short-term debt	631,000
Current maturities of long-term debt	100,000
	$16,256,000

The interest rate on short-term debt owed to U.S. Treasury as of September 1985, was 8.25 percent and the average rate on short-term debt outstanding with Federal Financing Bank as of September 30, 1985, was 7.29 percent.

During fiscal years 1985, 1984, and 1983, the maximum amounts of short-term borrowings outstanding were $1,155,000,000, $835,000,000, and $910,000,000, respectively, and the average amounts (and weighted average interest rates) of such borrowings were approximately $944,000,000 (8.4 percent), $628,000,000 (10.0 percent), and $700,000,000 (8.7 percent), respectively.

11. Retirement plan—TVA has a contributory retirement plan which covers substantially all of its salaried employees. The cost of currently accruing benefits is funded currently. The cost of the plan to TVA, including amortization of unfunded prior service costs over the average future careers of active members, was $76,437,000 in 1985, $75,348,000 in 1984, and $72,608,000 in 1983. These costs are charged to all TVA activities in relation to direct labor charges.

The valuation information as of September 30, 1984 and 1983, the latest actuarial valuation dates, follows:

	September 30	
	1984	1983
Assumed rate of return used in determining actuarial present value of accumulated plan benefits	8.5%	8.5%
Actuarial present value of accumulated plan benefits (thousands)		
Vested	$ 913,661	$ 823,848
Nonvested	54,423	47,336
	$ 968,084	$ 871,184
Net assets at market value available for benefits (thousands)	$1,241,655	$1,106,714

12. Nuclear insurance—Under the Price-Anderson Act of 1954, as amended (the Act), TVA maintains for each operating nuclear plant a two-layer combination of private insurance and industry-wide self-insurance which protects TVA up to the Act's current maximum aggregate liability of $640 million per nuclear incident. This protection covers liability for bodily injury, death, and loss of or damage to property located off the plant site. The first layer is private insurance, with a current maximum amount available of $160 million. The second layer, presently $480 million, is a program of self-insurance in which each nuclear reactor owner could be retrospectively assessed, for each of its operational nuclear units, an amount not to exceed $5 million per each nuclear incident, and not to exceed $10 million per year in the event of more than one nuclear inci-

dent in a year. Any amount in excess of $10 million in any year would be carried forward until fully paid. Based on the number of operating nuclear units presently in service, TVA would be subject to a maximum assessment of $25 million in the event of a single incident and $50 million in any calendar year.

TVA is a member of Nuclear Mutual Limited (NML) which provides nuclear property insurance for the Browns Ferry Nuclear Plant for losses up to $500 million. This insurance may require the payment of a retrospective premium of up to approximately $37 million in the event that losses by NML members exceed its available funds. Property insurance up to $500 million is also maintained for the Sequoyah Nuclear Plant, but is not subject to retrospective assessments.

TVA is also a member of Nuclear Electric Insurance Limited (NEIL), which provides nuclear property insurance for property damage to member nuclear plants in excess of $500 million. TVA presently insures all of its operating nuclear plants with NEIL for $525 million and is subject to a maximum assessment of approximately $19 million in the event losses by NEIL members exceed its available funds.

13. **Major customers**—In fiscal years 1985, 1984, and 1983, sales of electric power to one Federal agency amounted to 11 percent, 14 percent, and 16 percent, respectively, of total operating revenues. This customer in accordance with contract provisions has exercised its right, through notices eight years in advance, to reduce the amount of electric power to be purchased. These reductions, amounting to 1,000 megawatts each year, take place in the month of December in 1989, 1990, 1991, and 1992. TVA has taken the reductions into account in its future power supply plans.

14. **Litigation**—A suit filed in October 1981 in the United States District Court for the Middle District of Tennessee challenges TVA's charging of rates to produce revenues to pay interest costs on funds borrowed for construction of new facilities. Plaintiffs seek a declaratory judgment that TVA's action is unlawful and an injunction requiring TVA to "refund" to consumers about $1 billion in alleged "overcharges," representing current interest charges collected from ratepayers. TVA has moved to dismiss or for summary judgment. In TVA's opinion, plaintiffs are unlikely to prevail.

TVA has been sued, along with the United States and the Olin Corporation, by a group of plaintiffs numbering between 5,000 and 7,500, who claim to have been injured by the release of DDT manufactured by Olin which overflowed property titled to the United States and collected in a tributary of the Tennessee River. The original lawsuits were filed in September and October 1983, and several others have been filed since. The plant site where the DDT was manufactured was never under the custody or control of TVA; custody and control of the area through which DDT is alleged to have overflowed was transferred by TVA to the Army in 1941 for inclusion in the Redstone Arsenal. TVA sought to persuade the responsible parties to correct any improper release of DDT before this suit was instituted, but TVA had no responsibility or liability for the discharges. The complaint seeks $1.2 billion in compensatory and punitive damages from the defendants and an injunction requiring TVA to remove all DDT contamination in specified areas. In TVA's opinion, the plaintiffs are unlikely to prevail on their claims against TVA.

TVA employees are specifically subject to the Federal Employees' Compensation Act with respect to on-the-job injuries. That statute has an exclusive remedy provision, which is often attempted to be avoided by the injured employee's bringing suit against a coworker for alledgedly negligently causing the injury. Since TVA has an administrative policy of defending its employees, at TVA's own cost, against suits brought against them for actions or omissions taken in the course of employment, and paying any resulting judgments, such suits can lead to double recovery against TVA, a result which the statute prohibits. A growing number of such suits have been brought in recent years. TVA has tried to limit their impact in a number of ways, including the waiver of such suits as condition for TVA's defense of work-related suits, and the aggressive defense of sued employees on various legal grounds. The courts have been reaching differing conclusions on the different issues raised, and no single definitive decision has been issued. In the majority of cases which have gone to final judgment, TVA has prevailed either on the law or the facts, and TVA anticipates that it will be successful in similar cases of this type in the future.

A directly served industrial customer filed suit in July 1982 to have its December 31, 1980 power contract declared void because of alleged misrepresentations by TVA and for unspecified amounts of damages, court costs, and attorney's fees. TVA counterclaimed for amounts due under the contract. After filing the suit, the customer filed a petition for reorganization

under Chapter 11 of the bankruptcy laws. In May 1984 TVA accepted the offer to conclude all of the litigation upon plaintiff's agreement to recognize as a valid claim in the bankruptcy proceedings all amounts then due and owing under the power contract. All amounts due have now been paid in full, and the payment of the outstanding amount is reflected in this year's financial statements. The total payment to TVA as a result of this litigation exceeded $34 million, including interest.

Operating Statistics
Power Earnings (Millions)

Operating Revenues	1985	1984	1983	1982	1981	1980
Sales of electric energy						
Municipalities and cooperatives	$3,272.3	$3,189.7	$2,936.0	$2,815.4	$2,525.4	$2,130.8
Federal agencies	565.9	648.8	693.9	670.9	474.9	429.2
Industries	629.0	685.2	583.2	626.4	714.9	647.5
Electric utilities	15.8	14.4	8.0	13.8	27.8	20.7
Interdivisional	15.6	17.0	15.1	14.3	17.2	12.3
Revenue credit due customers	—	150.0*	152.0*	183.7*	—	57.0*
Total sales of electric energy	4,498.6	4,405.1	4,084.2	3,957.1	3,760.2	3,183.5
Rents and other miscellaneous revenues	48.9	48.0	30.1	24.7	19.9	20.8
Total operating revenues	4,547.5	4,453.1	4,114.3	3,981.8	3,780.1	3,204.3
Operating Expenses						
Production	1,984.1	1,858.7	1,750.4	1,857.1	2,011.2	1,812.5
Transmission	43.1	43.2	42.0	45.1	34.1	34.4
Customer accounts	11.2*	24.8	18.9	9.1	.8	.8
Power consumer services	18.2	20.3	17.7	9.1	4.7[b]	—
Demonstration of power use	24.3	18.0	15.9	16.9	10.9	14.2
Research, development, and demonstrations	52.1	40.9	60.9	58.8	52.5[c]	—
General and administrative[d]	215.4	186.1	167.1	76.6	121.5	116.7
Payments in lieu of taxes	188.2	170.2	165.2	163.5	137.4	113.6
Social security taxes	—	—	—	—[e]	19.0	17.2
Amortization of loss on cancelled nuclear plants	—	145.0	—	—	—	—
Depreciation	287.6	267.4	247.0	225.1	198.2	169.0
Total operating expenses	2,801.8	2,774.6	2,485.1	2,461.3	2,590.3	2,278.4
Operating income	1,745.7	1,678.5	1,629.2	1,520.5	1,189.8	925.9
Other Income and Deductions	286.1*	786.5*[f]	198.4*	258.6*	410.6*[f]	2.3
Income before interest charges	1,459.6	892.0	1,430.8	1,261.9	779.2	928.2
Interest Charges						
Interest on long-term debt, other interest expense, and amortization of long-term debt discount and expense	$1,610.8	$1,559.4	$1,490.6	$1,383.2	$1,173.4	$ 881.8
Allowance for borrowed funds	577.6*	533.0*	498.3*	511.7*	178.2*	154.6*
Net interest charges	1,033.2	1,026.4	992.3	871.5	995.2	727.2
Net Income (Loss)	426.4	(134.4)	438.5	390.4	(216.0)	201.0
Return on appropriation investment	96.5	93.7	106.5	109.5	86.4	78.4
Increase (decrease) in retained earnings reinvested	329.9	(228.1)	332.0	280.9	(302.4)	122.6
Retained earnings reinvested at beginning of period	1,500.6	1,728.7	1,396.7	1,115.8	1,418.2	1,295.6
Retained earnings reinvested at end of period	$1,830.5	$1,500.6	$1,728.7	$1,396.7	$1,115.8	$1,418.2

[a]Does not include transition period July-September, 1976.
[b]Prior to 1981, Power consumer services cost was allocated primarily to demonstration of power use.
[c]Prior to 1981, research development, and demonstrations cost was allocated to various functions.
[d]Includes social security taxes and fringe benefit costs except for 1982, when those costs were allocated to various functions.

Fiscal Years								
1979	1978	1977[a]	1976	1975	1974	1973	1972	1971
$1,810.9	$1,540.1	$1,238.3	$1,057.4	$ 737.2	$556.1	$476.3	$415.3	$379.2
368.7	305.8	322.6	300.1	182.5	121.5	103.2	73.3	61.9
598.2	456.0	355.7	303.6	227.6	179.8	144.7	124.3	125.0
4.7	3.9	2.9	1.9	1.6	1.2	.8	6.3	10.1
12.8	6.5	5.6	8.0	6.7	5.0	4.0	3.4	3.1
163.0*	—	—	—	—	—	—	—	—
2,632.3	2,312.3	1,925.1	1,671.0	1,155.6	863.6	729.0	622.6	579.3
24.6	37.8	41.6	21.5	20.7	20.0	20.3	19.2	18.7
2,656.9	2,350.1	1,966.7	1,692.5	1,176.3	883.6	749.3	641.8	598.0
1,594.0	1,539.9	1,309.2	1,161.5	750.8	494.2	408.7	325.6	306.1
31.9	27.5	27.6	24.6	22.2	20.8	18.9	17.8	16.9
.8	.7	.7	.6	.5	.5	.5	.4	.4
—	—	—	—	—	—	—	—	—
12.1	4.3	2.1	1.4	1.3	1.3	1.3	1.2	1.2
—	—	—	—	—	—	—	—	—
93.6	81.6	60.0	48.6	34.0	29.9	27.4	24.0	22.0
100.0	79.9	68.2	48.4	36.8	31.1	27.3	25.7	20.0
14.6	11.7	8.7	6.7	5.2	4.6	3.8	3.2	2.9
—	—	—	—	—	—	—	—	—
160.6	150.4	138.4	122.0	110.3	97.1	89.5	83.4	80.0
2,007.6	1,896.0	1,614.9	1,413.8	961.1	679.5	577.4	481.3	449.5
649.3	454.1	351.8	278.7	215.2	204.1	171.9	160.5	148.5
7.2*	.3	1.4*	.3*	.2*	.6*	.4	.1*	.1
642.1	454.4	350.4	278.4	215.0	203.5	172.3	160.4	148.6
$ 659.1	$ 486.8	$ 379.2	$ 292.4	$ 229.0	$183.4	$139.3	$100.3	$ 77.7
153.7*	249.0*	178.6*	140.0*	117.4*	86.0*	73.4*	52.0*	48.1*
505.4	237.8	200.6	152.4	111.6	97.4	65.9	48.3	29.6
136.7	216.6	149.8	126.0	103.4	106.1	106.4	112.1	119.0
68.9	61.7	64.0	65.0	71.4	63.4	53.7	55.8	65.2
67.8	154.9	85.8	61.0	32.0	42.7	52.7	56.3	53.8
1,227.8	1,072.9	987.1	898.4	866.4	823.7	771.0	714.7	660.9
$1,295.6	$1,227.8	$1,072.9	$ 959.4	$ 898.4	$866.4	$823.7	$771.0	$714.7

[c]In 1982, fringe benefit costs previously included in administrative and general expense were allocated to various functions.
[f]Includes $400 million in 1981 and $800 million in 1984 for loss on deferred or cancelled nuclear units.
*Deduct

Net Power Assets

(Millions of Dollars)

	At September 30					
Net Assets	**1985**	**1984**	**1983**	**1982**	**1981**	**1980**
Completed plant	$10,708.3	$10,293.3	$ 9,757.2	$ 9,135.1	$ 7,887.9	$ 6,641.0
Less accumulated depreciation	3,192.5	2,842.1	2,607.9	2,377.5	2,184.9	2,041.6
Net completed plant	7,515.8	7,451.2	7,149.3	6,757.6	5,703.0	4,599.4
Construction in progress	7,617.0	6,526.6	5,839.9	5,034.5	6,650.3	7,702.8
Deferred nuclear generating projects	—	—	2,667.1	2,614.6	1,587.4	—
Capital lease assets	1,697.2	1,617.2	—	—	—	
Investment funds	328.5	145.1	103.3	59.1	—	—
Nuclear fuel	18.5	20.3	40.8	16.4	26.0	10.5
Inventories	565.0	693.8	767.8	788.7	584.0	745.0
Other current assets less other current liabilities	269.6*	406.6*	403.0*	493.7*	284.6*	348.1*
Unamortized and recoverable cost of cancelled generating units	2,627.6	2,865.1	1,004.4	1,291.5	—	—
Other deferred charges and other assets, net	409.9	411.6	412.3	370.0	515.1	418.0
Total	$20,509.9	$19,324.3	$17,581.9	$16,438.7	$14,781.2	$13,127.6
Derived From						
U.S. Treasury funds, gross	$ 1,508.1	$ 1,508.3	$ 1,503.3	$ 1,502.2	$ 1,480.6	$ 1,479.6
Less Treasury funds repaid	680.1	660.1	640.1	620.2	600.2	580.2
Net U.S. Treasury funds	828.0	848.2	863.2	882.0	880.4	899.4
Capital lease obligations	1,695.4	1,615.5	—	—	—	—
Long-term debt	15,525.0	14,525.0	14,275.0	13,425.0	11,325.0	9,025.0
Short-term notes payable to U.S. Treasury	150.0	150.0	150.0	150.0	150.0	150.0
Short-term debt payable to others	481.0	685.0	565.0	585.0	1,310.0	1,635.0
Advances and contributions	—	—	—	—	—	—
Retained earnings	1,830.5	1,500.6	1,728.7	1,396.7	1,115.8	1,418.2
Total	$20,509.9	$19,324.3	$17,581.9	$16,438.7	$14,781.2	$13,127.6

Note: In all years, the amounts for "U.S. Treasury funds, gross" include the full $65.1 million of bonds issued by TVA to the Treasury and to the RFC, and the amounts for "Less Treasury funds repaid" include the amounts redeemed. All of these bonds were redeemed by June 30, 1956.

*Deduct

At June 30								
1979	1978	1977	1976	1975	1974	1973	1972	1971
$ 6,436.6	$5,865.2	$5,614.3	$5,017.0	$4,778.6	$4,061.9	$3,820.5	$3,404.4	$3,317.9
1,897.5	1,746.1	1,609.3	1,458.9	1,344.4	1,242.4	1,156.2	1,075.4	998.0
4,539.1	4,119.1	4,005.0	3,558.1	3,434.2	2,819.5	2,664.3	2,329.0	2,319.9
5,832.3	4,586.6	3,280.2	2,470.9	1,714.2	1,552.0	1,318.6	1,294.3	822.4
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
448.1	393.0	299.6	227.3	169.0	129.9	93.1	63.9	41.5
611.0	359.5	373.0	377.4	273.2	128.7	140.8	109.3	83.1
433.2*	195.6*	131.5*	290.6*	47.6*	22.6	17.4*	26.3*	34.9*
—	—	—	—	—	—	—	—	—
210.9	92.3	53.9	17.3	11.2	23.9	15.0	11.5	10.0
$11,208.2	$9,354.9	$7,880.2	$6,360.4	$5,554.2	$4,676.6	$4,214.4	$3,781.7	$3,242.0
$ 1,472.8	$1,472.3	$1,472.5	$1,471.1	$1,470.9	$1,470.3	$1,469.9	$1,470.0	$1,466.4
560.2	540.2	520.2	475.1	475.1	455.1	435.1	415.2	395.2
912.6	932.1	952.3	996.0	995.8	1,015.2	1,034.8	1,054.8	1,071.2
—	—	—	—	—	—	—	—	—
6,625.0	5,425.0	4,725.0	3,575.0	2,875.0	2,125.0	1,775.0	1,225.0	675.0
150.0	150.0	150.0	150.0	150.0	100.0	100.0	100.0	100.0
2,225.0	1,620.0	980.0	680.0	635.0	570.0	480.0	630.0	680.3
—	—	—	—	—	—	.9	.9	.8
1,295.6	1,227.8	1,072.9	959.4	898.4	866.4	823.7	771.0	714.7
$11,208.2	$9,354.9	$7,880.2	$6,360.4	$5,554.2	$4,676.6	$4,214.4	$3,781.7	$3,242.0

System Input, System Output

(Millions of Kilowatthours)

System Input	1985	1984	1983	1982	1981	1980
System generation						
Hydro						
TVA plants	10,522	15,563	15,888	13,221	9,051	16,640
Tapoco plants	1,093	1,712	1,797	1,738	1,206	2,313
Cumberland plants	1,985	2,719	3,193	2,796	1,355	3,117
Total hydro	13,600	19,994	20,878	17,755	11,612	22,070
Pumped-storage[a]	385*	351*	381*	334*	344*	360*
TVA coal-fired plants	73,760	69,144	65,678	68,149	82,268	82,562
TVA nuclear plants	17,704	24,835	28,140	27,995	21,498	18,614
Combustion turbine plants	26	45	16	32	131	180
Total net generation	104,705	113,667	114,331	113,597	115,165	123,066
Purchased	482	374	253	150	916	278
Net interchange	2,860	488*	3,748*	623*	3,853	2,431
Total input	108,047	113,553	110,836	113,124	119,934	125,775
System Output						
Sales						
Municipalities and cooperatives	82,155	80,700	76,305	75,681	76,680	78,683
Federal agencies	5,216	11,162	16,353	16,671	14,807	16,922
Industries	15,425	16,456	13,065	15,490	22,180	23,862
Electric utilities	391	318	158	354	710	708
Interdivisional	357	390	353	351	478	395
Total sales	103,544	109,026	106,234	108,547	114,855	120,570
Returned to ALCOA[b] and Tapoco	1,621	1,625	1,687	1,751	1,809	1,779
Losses	2,882	2,902	2,915	2,826	3,270	3,426
Total output	108,047	113,553	110,836	113,124	119,934	125,775
Generating capacity, fiscal year end—kilowatts	32,088,870	32,079,970	32,077,270	32,163,645	31,108,740	29,864,910
Area peak load—kilowatts	22,237,000	21,101,000	20,373,000	22,478,000	21,694,000	20,745,000

[a]Net losses in storing offpeak power from other sources for use in peak periods. Pumped-storage output was 1,417 million kWh in fiscal year 1985.
[b]For comparative purposes only. 1962 agreement effective January 1, 1963, expired December 31, 1982.

*Deduct

Fiscal Years

1979	1978	1977	1976	1975	1974	1973	1972	1971
15,731	15,501	14,318	14,607	17,176	17,486	18,142	15,915	12,734
2,243	2,015	1,949	2,048	2,393	2,408	2,623	2,120	1,812
3,376	3,178	1,930	2,542	3,381	3,643	3,693	3,258	2,737
21,350	20,694	18,197	19,197	22,950	23,537	24,458	21,293	17,283
273*	13*	—	—	—	—	—	—	—
78,081	77,940	82,493	81,764	71,699	84,084	84,384	73,440	74,332
19,771	15,795	20,003	100*	7,429	1,947	—	—	—
546	2,941	2,112	1,120	507	292	254	71	18
119,475	117,357	122,805	101,981	102,585	109,860	109,096	94,804	91,633
87	901	602	4,952	5,277	1,047	670	266	594
3,058	5,006	3,721	6,708	3,412	113	915*	1,077	3,840
122,620	123,264	127,128	113,641	111,274	111,020	108,851	96,147	96,067
75,936	77,875	76,505	66,537	64,468	64,183	63,822	57,820	55,535
16,170	16,722	22,268	21,610	19,389	17,388	17,113	12,502	11,774
24,913	22,878	22,739	19,941	21,822	23,790	21,865	19,592	21,278
172	176	162	97	116	122	92	540	1,407
497	295	313	533	638	662	581	636	654
117,688	117,946	121,987	108,718	106,433	106,145	103,473	91,090	90,648
1,856	1,825	1,709	1,845	1,719	1,850	1,820	1,858	1,847
3,076	3,493	3,432	3,078	3,122	3,025	3,558	3,199	3,572
122,620	123,264	127,128	113,641	111,274	111,020	108,851	96,147	96,067
29,858,110	28,308,710	28,294,960	27,071,480	26,726,630	23,319,030	21,892,480	19,880,420	19,828,380
21,540,000	21,992,000	21,803,000	20,381,000	18,633,000	18,611,000	18,888,000	16,664,000	16,745,000

Customer Statistics

In the following tables, the sales and related statistics for TVA and for the local distributors have been combined to portray total sales to ultimate customers.

Ultimate Customers

Fiscal Year	Total	Residential	Commercial and Industrial	Federal Agencies	Outdoor Lighting
1985	3,035,953	2,692,349	336,033	11	7,560
1984	2,968,490	2,633,892	327,360	12	7,226
1983	2,911,644	2,585,276	319,651	11	6,706[a]
1982	2,857,529	2,543,983	309,982	11	3,553
1981	2,826,882	2,519,709	303,716	11	3,446
1980	2,784,675	2,481,545	299,744	11	3,375
1979	2,722,984	2,425,623	294,041	11	3,309
1978	2,664,412	2,371,064	290,132	11	3,205
1977	2,601,415	2,316,414	281,906	11	3,084
1976	2,521,956	2,248,475	270,532	11	2,938
1975	2,458,822	2,192,972	263,056	11	2,783
1974	2,401,581	2,139,476	259,417	11	2,677
1973	2,325,134	2,068,150	254,423	11	2,550
1972	2,236,153	1,987,724	245,965	11	2,453
1971	2,158,423	1,919,208	236,687	11	2,517

Electricity Sales - *Millions of kilowatthours*

Fiscal Year	Total	Residential	Commercial and Industrial	Federal Agencies	Outdoor Lighting
1985	98,625	36,493	55,475	5,573	1,084
1984	104,272	36,430	55,200	11,552	1,090
1983	101,409	34,715	49,207	16,353	1,134
1982	103,854	34,727	50,964	17,022	1,141
1981	110,152	35,568	58,169	15,285	1,130
1980	115,007	37,093	59,509	17,317	1,088
1979	113,438	35,212	60,511	16,667	1,048
1978	113,418	37,874	57,522	17,018	1,004
1977	117,764	37,648	56,552	22,582	982
1976	104,925	31,985	49,884	22,143	913
1975	102,778	31,785	50,117	20,027	849
1974	102,618	30,602	53,125	18,050	841
1973	99,670	30,637	50,557	17,694	782
1972	87,333	27,474	46,005	13,138	716
1971	85,930	27,291	45,553	12,427	659

[a]Initial reporting and counting of individual outdoor lighting customers with no other service began in July 1983.

Revenue from Electric Sales - *Thousands of dollars*

Fiscal Year	Total	Residential	Commercial and Industrial	Federal Agencies	Outdoor Lighting
1985	$4,973,298	$1,750,843	$2,591,914	$555,939	$74,602
1984	5,022,329	1,740,914	2,570,478	638,655	72,282
1983	4,642,597	1,615,581	2,294,939	665,648	66,429
1982	4,674,745	1,603,349	2,323,721	685,175	62,500
1981	4,225,171	1,446,096	2,231,218	492,143	55,714
1980	3,576,533	1,222,042	1,864,468	441,463	48,560
1979	3,235,762	1,090,813	1,718,399	381,555	44,995
1978	2,747,716	1,015,406	1,379,852	312,328	40,130
1977	2,324,976	873,061	1,087,537	328,237	36,141
1976	1,978,805	724,011	915,431	308,071	31,292
1975	1,448,320	559,439	672,806	189,187	26,888
1974	1,138,887	442,644	545,319	126,544	24,380
1973	992,421	398,253	465,323	107,154	21,691
1972	860,669	352,116	412,374	76,685	19,494
1971	796,426	332,544	381,299	65,010	17,573

Residential Statistics

Fiscal Year	TVA Average Annual Use—kWh	TVA Average Annual Bill	TVA Average Annual Rate ¢/kWh	U.S. Average Annual Use--kWh	U.S. Average Annual Rate ¢/kWh
1985	13,730	$658.64	4.80	9,192*	7.37*
1984	13,990	668.32	4.78	8,968	7.09
1983	13,580	631.42	4.65	8,796	6.84
1982	13,760	635.18	4.62	8,903	6.34
1981	14,250	579.24	4.07	8,816	5.44
1980	15,130	498.49	3.29	8,944	4.78
1979	14,680	454.81	3.10	8,834	4.24
1978	16,190	434.03	2.68	8,828	3.98
1977	16,400	380.34	2.32	8,730	3.70
1976	14,370	325.35	2.26	8,209	3.33
1975	14,540	255.92	1.76	8,068	3.05
1974	14,480	209.37	1.45	8,019	2.54
1973	15,080	196.07	1.30	7,882	2.32
1972	14,040	179.92	1.28	7,496	2.25
1971	14,400	175.53	1.22	7,243	2.14

Beginning with fiscal year 1977, data for TVA and U.S. average are for 12 months ending September. Prior years for TVA are for 12 months ending June each year.

*12 months ending June 1985.

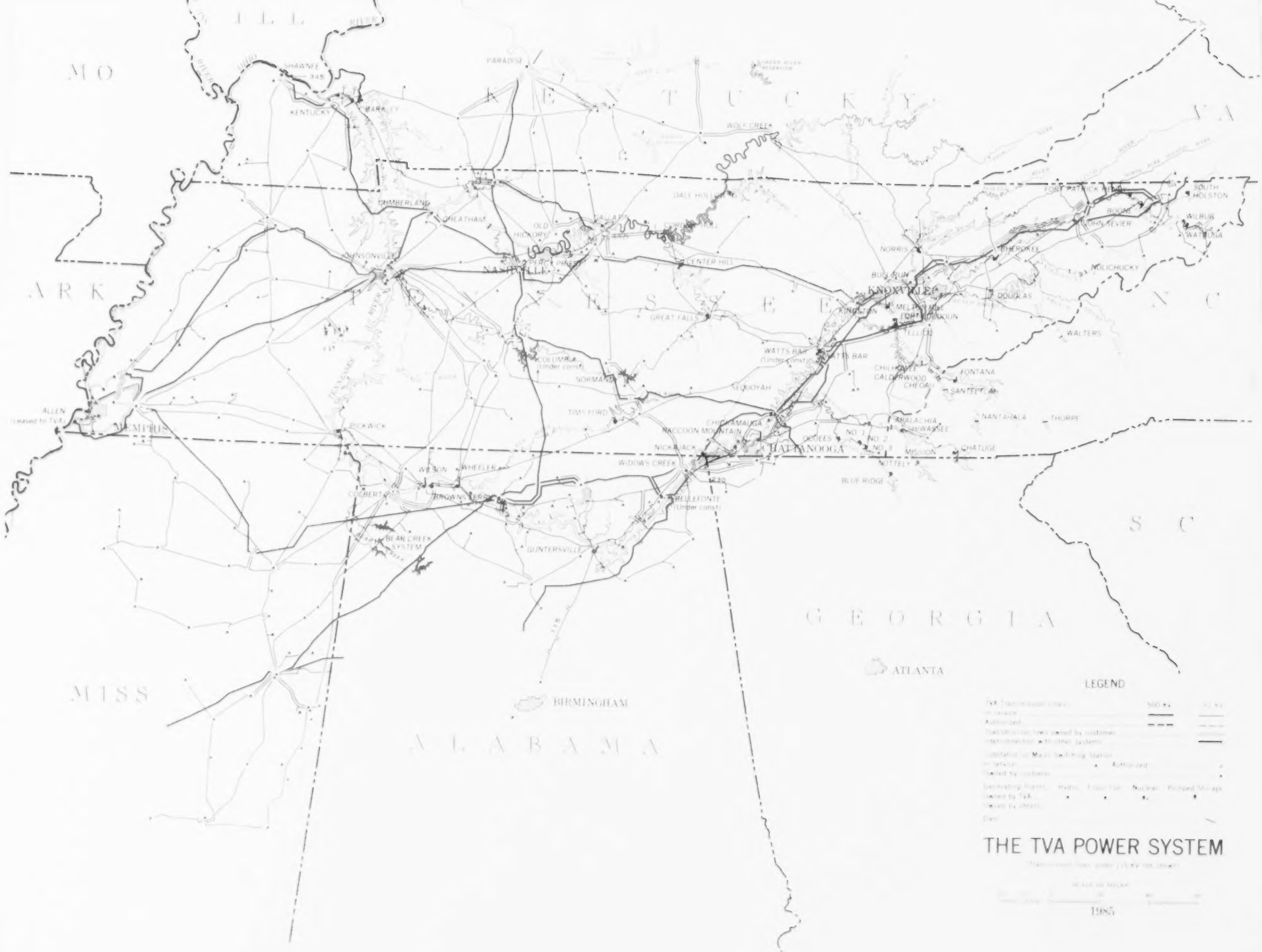
Federal agencies include only TVA's direct service and interdivisional sales.

To avoid overstating the number of customers in the region, the number of Outdoor Lighting customers excludes the customers who supplement regular service with the special outdoor lighting fixture. Only public street lighting and athletic field lighting customers are counted. However, the energy sales and revenue figures under Outdoor Lighting do include data for the special features.

Fuel Statistics

	1985	1984	1983	1982	1981
Fuel Burned					
Coal-fired plants					
Coal - tons	31,143,690	29,334,992	27,466,097	28,802,494	35,645,302
Oil - gallons[1]	12,312,658	15,284,725	13,176,131	14,040,429	14,055,379
Total fuel expense	$1,271,566,643	$1,199,179,689	$1,215,135,920	$1,207,486,733	$1,359,923,340
Coal expense per ton	$40.494	$40.452	$43.772	$41.341	$37.757
Oil expense per gallon[1]	$0.848	$0.818	$0.977	$1.192	$1.000
Nuclear plants					
Total fuel expense	$153,076,104	$162,493,974	$142,462,127	$111,964,362	$83,011,913
Combustion turbine plants					
Oil - gallons	3,712,301	4,757,126	1,315,672	4,156,971	7,087,328
Gas - MCF	36,500	93,746	233,264	31,873	919,407
Total fuel expense	$2,505,003	$3,229,159	$1,989,114	$2,784,380	$6,507,422
Oil expense per gallon	$ .537	$ .532	$ .530	$ .540	$ .531
Gas expense per MCF	$3.662	$3.415	$3.915	$5.122	$2.984
Fuel Ratios					
Fuel expense per net kWh - mills					
Coal-fired plants	17.24	17.34	18.50	17.72	16.53
Combustion turbine	94.49	72.22	122.79	85.48	49.72
Nuclear plants	8.65	6.54	5.06	4.06	3.95
Cents per million Btu burned					
Coal-fired plants	171.61	172.07	186.05	178.81	165.07
Combustion turbines	448.58	423.06	468.08	453.28	336.83
Nuclear plants	82.64	61.29	48.10	38.02	37.24
Coal Received					
Tons	29,003,220	29,362,079	28,186,571	33,557,025	29,284,209
Mine cost plus transportation	$1,095,891,936	$1,089,907,876	$1,165,403,602	$1,379,817,780	$1,153,106,637
Cents per million Btu	160.50	157.82	175.69	175.96	169.70

[1] Oil fired for light-off of coal-fired boilers and auxiliary uses.


PARADISE
KENTUCKY
BARKLEY
WOLF CREEK
CUMBERLAND
HEATHAM
JOHNSONVILLE
OLD HICKORY
CENTER HILL
NASHVILLE
NORRIS
BULL RUN
KNOXVILLE
KINGSTON
MELTON HILL
FORT LOUDOUN
DOUGLAS
GREAT FALLS
WATTS BAR
WATTS BAR (Under Const.)
CHICKAMAUGA
RACCOON MOUNTAIN
NICKAJACK
WIDOWS CREEK
CHATTANOOGA
OOLTEWAH
NO. 1
NO. 2
NO. 3
MISSION
CHATUGE
BLUE RIDGE
APALACHIA
HIWASSEE
NANTAHALA
THORPE
FONTANA
SANTEETLAH
CHEOAH
CALDERWOOD
CHILHOWEE
TIMS FORD
SEQUOYAH
NORMANDY
COLUMBIA (Under Const.)
ALLEN (Leased to TVA)
MEMPHIS
PICKWICK
COLBERT
WILSON
WHEELER
BROWNS FERRY
BELLEFONTE (Under Const.)
BEAR CREEK SYSTEM
GUNTERSVILLE
SOUTH HOLSTON
WILBUR
WATAUGA
BOONE
JOHN SEVIER
FORT PATRICK HENRY
WOLF CREEK
DALE HOLLOW
OLD HICKORY
CENTER HILL
NORRIS
BULL RUN
MOLICHUCKY
WALTERS
KENTUCKY
TENNESSEE
NORTH CAROLINA
SOUTH CAROLINA
GEORGIA
ALABAMA
MISSISSIPPI
ATLANTA
BIRMINGHAM
LEGEND
THE TVA POWER SYSTEM
1985